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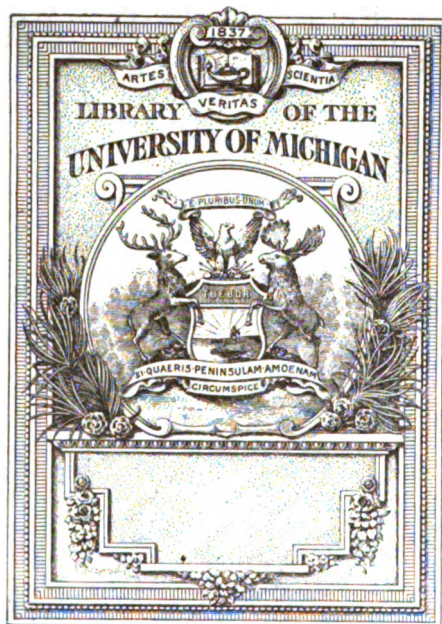
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ORIGINAL.

A FEW REMARKS ON THE PROSPECTS OF THE CHRONIC DYSEPTIC.

By Mark I. Knapp, M. D., New York City.

I wish to begin with the assertion that the prospects for the chronic dyspeptic as to absolute recovery are very good. But, when one has recovered from chronic dyspepsia, falls back upon his old method of intemperate living, again eating of forbidden food, again indulging in excesses which were the very cause of his former troubles, why should there not be another attack? Relapse? No; the same cause, the same effect. This should not mean to imply that one has to drudge along in his life on a very limited choice of food, and that he has to deny himself the pleasures of eating. Not by any means. Indeed, in my experience I found but very few articles of food which I deny the patients. In fact, I must use a great deal of persuasion to make them eat the food which was forbidden them either by their physician or by their sad experience. As a rule my patients gain buoyancy of spirits very quickly, and the melancholy, sour face soon manifests the expression of perfect contentment.

The term "dyspepsia," without any further qualification, is absolutely absurd and surely means no more than if the diagnosis "fever" were made. Dyspepsia simply means difficulty with the digestion. But it remains to be ascertained—ascertained, not guessed—where and what particular part of the gastro-intestinal canal is at fault, and what particular juice, what particular element of that particular section is deranged. In this article I shall speak briefly of such diseases which I have originally described, and I would therefore refer the reader to my numerous monographs, especially to "Some New Facts in the Chemistry of the Stomach" (American Medicine, March 22, 1902), "Organacidia Gastrica" (Medical Record, September 6, 1902), "Insufficiencia Pylori" (Philadelphia Medical Journal, May 24, 1902, and also Medical Record, April 30, 1904).

The suffering of the chronic dyspeptic is produced by definite causes and the cause must be found. It is surely the easiest to make the diagnosis of "nervous dyspepsia" but I must confess that I have never yet been able to discover such a case in my own practice although many cases came to me with that diagnosis. The reason for that fact is that the medical profession is yet to learn that all our processes resulting in the creation and maintenance of life are chemical processes and that chemical processes as yet defy ocular demonstration of their *modus operandi*. We are yet to shake off the fetters that tie us to the theory that pathological manifestations must needs be demonstrable by gross or at least microscopical changes. Again, the indicators we have been taught to use are very fallacious. I have in mind especially the Topfer's solution which is almost universally used as the means to determine the presence and the quantity of free HCl. It was my good fortune to demonstrate the great fallacy of this reagent and also to discover a means of accurately proving both the presence and the quantity of the free HCl and of organic acids. It is these latter that have escaped entirely our attention. Either organic acids were not mentioned at all in the text books or were but scantily referred to. The cause is apparent. The only means to demonstrate the organic acids we had heretofore was either to rely upon the olfactory nerves or else to have recourse to the very laborious methods of distillation, the latter surely a means not readily available to the clinician. But according to my method both the free HCl and the free organic acids can be shown with great ease and quantitatively determined in the same specimen of filtered chyme in about one or two minutes. The discovery of these facts have entirely revolutionized my conception of gastric and enteric disorders to the great satisfaction of myself and patients. Accordingly, I have soon found that the cases which came to me with a diagnosis of "nervous" proved to be really cases in which there were either no free HCl at all or very little and that the free acids relied on as being HCl because indicated by Topfer's solu-

tion were not HCl at all but free organic acids. This, of course, was a great revelation as it meant a different line of treatment. I would like the reader to recall the cases in which a dyspeptic complaining of sour stomach was not only cured by the administration of HCl but who were absolutely made worse by the bicarbonate of soda which was at first given. The fact that a very great many suffer from either an absolute or relative excess of organic acids made me term this class of diseases "organacidia gastrica" (organ-acid-ia, organic acids). The organic acids are the result of four different causes, hence I differentiate four different varieties (at first I differentiated only three subdivisions). 1. Organacidia gastrica simplex, which is the result of the ingestion of large quantities of organic acids as in fruits or salads; 2. Gastrosia fungosa, the organic acids here are due to the presence of mold growth; 3. Zymosia gastrica (zym-e, yeast) the organic acids are due to the presence of large quantities of budding, sporulating yeast, and 4. Organacidia gastrica ab amylo in which condition the excess of organic acids are due to the ingestion of very large quantities of starchy matter. The second class deserves special attention. Mold is present in the stomachs of a great many patients. We are all familiar with the green vomit which we have always considered as "vomiting bile." This supposed green bile is no bile, but the green mold variety of which patches of various size are very frequently aspirated.

Another variety of mold which I found very often is of a dark red color, which, if vomited up or aspirated in large quantities appears to the uninitiated to be blood. Just imagine the case of a dyspeptic of middle age giving us the history of pain, dyspepsia, loss of flesh and vomiting of dark red "stuff;" his fate is sealed we think, cancer is the diagnosis. But notwithstanding this it might be only a case of innocent gastrosia fungosa. I have seen many of such cases which after the proper diagnosis had been made and then correspondingly treated got well very rapidly. I just recall now the case of a woman past 50 with just such symptoms: dyspepsia, severe pain, great loss of flesh, vomiting and the presence of a tumor. The physician who had previously attended her and advised her of the gravity of the case met me some time after the patient had recovered and expressed to me his incredulity of my diagnosis as he found the tumor to be present without the possibility of any doubt. So it was; I also felt a tumor. But had this physician kept his hand upon that woman's abdomen for some time he would have ascertained that gradually that tumor softened up and almost disappeared. The tumor felt was the spastically contracted pylorus.

Organic acids irritate the mucous membrane of every organ. The response to such

an irritation is contraction of the muscularis to which the mucous membrane is attached. The greater the quantity of the organic acids and the longer the duration of their action. The greater the quantity of the organic acids greater and the more prolonged the contraction. In the usually erect or sitting posture the food, following the laws of gravity gravitates to the most dependent portion of the stomach and thus effects a more vertical position of the viscus; also the pylorus is drawn down. Hence all irritating matter which enters or develops in the stomach affects chiefly the pyloric region, a fact which is verified in the vast majority of operations and autopsies. Contraction of the pylorus means the entire occlusion of the lumen of the pylorus, and the greater the irritation the greater the contraction the greater the pain attending such contraction. Furthermore, the longer such irritation continues the longer also remains the occlusion of the pylorus. This occlusion of the pylorus constitutes the "stenosis pylori ab irritatione." In the newly born infant organacidia gastrica caused either by the quality or the quantity of the milk, produces the stenosis of the pylorus and the slightest inflammatory exudate consequent upon such grave an interference will very soon effect absolute and permanent occlusion of the pylorus with fatal result.

Stenosis pylori ab irritatione is to be diagnosed by the aspiration of a large quantity of chyme which soon divides into an upper and lower layer. This lower layer shows the solids of the test meal in a very finely divided condition which resembles very much a layer of flour and I therefore termed it the "floury layer." Here again I opposed the views that have come down to us from time immemorial. The very fine subdivision I have proved in my first article on insufficiencia pylori (cited above) to indicate the very opposite of atony of the stomach; it actually shows "hypertony of the stomach." Imagine the difference in the treatment. This, my view was published here almost simultaneously with the monograph of Boas, of Berlin, who also holds the same view and since then quite many have accepted the new teaching.

It should be remembered that by organacidia gastrica I understand only the presence of relatively large quantities of organic acids. So that an acidity of say 15 organic acids may be either large or insignificant; it depends on the simultaneous presence of HCl. If there is about 40 free HCl and 15 organic acids we may disregard the small quantity of the organic acids. But if there is no free HCl at all then this quantity of 15 organic acids becomes a great factor. It is to be regretted that the belief still lingers that organic acids can not exist in the presence of free HCl. For the determination of the free

HCl I most strongly recommend the alcoholic solution of tropaeolin 00, which is prepared in the following way: A small quantity of the tropaeolin is put into absolute alcohol. This is left for a day or two but shaken up a few times. Then a little more of the tropaeolin is added and proceeded as at first. Again tropaeolin is added after the solution has stood for a day or two and so we continue adding the tropaeolin until the solution assumes the color of tincture of iodine. In all it takes about five to six days to get the solution. It will not always do to put in a sufficient quantity of the tropaeolin at once as I first advocated, because the tropaeolin undergoes some sort of a change, a sort of coagulation, by which only a little of the tropaeolin will dissolve.

To 5 cc. of filtered chyme two drops of the tropaeolin indicator are added and the titration begins. In the presence of free HCl the chyme is colored a jasper red, a deeper or lighter red according to the concentration of the HCl. The titration is continued until the chyme becomes an amber color which is the end reaction for free HCl. Now we can proceed with the determination of the free organic acids in the specimens of chyme by adding two drops of the Topfer's solution (a half per cent. alcoholic solution of methyl orange). In the presence of free organic acids the amber color is changed into a carmine red. The titration is now resumed and continued until a pale lemon yellow color is reached which signifies the end reaction for the free organic acids. We now can continue and determine the general acidity, using the 1 per cent. alcoholic solution of phenol-phthalein as the indicator. We add two drops of this latter solution to the chyme which is now a pale lemon yellow color and continue the titration until carmine red color appears. Thus we see we can determine all these facts with but one single specimen of chyme. For the direct determination of the free organic acids I recommend my floating method which is exceedingly sensitive and which is performed in the following way. One cc. of the filtered chyme is put into a Straus separatory funnel or into an ordinary narrow test tube and four cc. ether is poured over it. The funnel or the test tube is now shaken up a few times and then put away until again required. We now take two cc. of distilled water into a narrow test tube and add to it one drop of a 10 per cent. solution of perchloride of iron. This addition makes a scarcely perceptible difference in the color of the water. By this time the ether has separated from the chyme and only the clear ether is very carefully floated upon the iron solution. In the presence of free organic acids a variously colored ring is seen at the plane of junction between the ether and the iron solution. This ring must be absolutely clear and perfectly transparent; it shall not

be opaque. If we have not been careful enough even a slight trace of the chyme will cause a somewhat opaque color which might be taken for the ring of the organic acids. I refer the reader to my article on Some New Facts in the Chemistry of the Stomach, cited above, which treats of the different organic acids and of the rings which they produce.

As stated before the organic acids irritate the mucous lining of the stomach and the first result is a stenosis of the pylorus. We can easily imagine that the constant and oft repeated stenosis will sooner or later weaken the muscle of the pylorus and that the pylorus will gradually lose its power of complete closure. The pylorus gradually tires out. We then reach the contrary condition of stenosis, the contraction gives place to relaxation, the stenosis of the pylorus gives way to insufficiency of the pylorus. Thus we get the disease and symptoms of which have baffled the medical profession. Insufficiencia pylori is the very natural sequence of the chronic pyloritis. Pyloritis! pray, not gastritis; gastritis is so relatively rare, pyloritis is the most common.

Insufficiencia pylori as such gives no symptoms. The patient does not come for the cure of his insufficiency but for the cure of its accompanying symptoms which, in most instances, are indeed very grave. This disease may simulate tuberculosis, anaemia, pernicious anemia, cancer and a few other grave diseases. And yet, notwithstanding the apparent gravity of the condition of the patient the results are so rapid and so marked that the patients soon exceed their limits from sheer overbearing over the miraculous results. Miraculous scarcely conveys the proper conception of the results; one must see the results to believe. I have seen now a great number of cases of insufficiency, all of them got well in a very short time. Never despair of any case no matter how hopeless it appears to be. Patients who have suffered for many, many years, for 10, 20 or more years and who have long despaired of their recovery thus sharing the opinion of their physicians began to feel well in as many days, if not sooner. This sounds very incredible, but it is the actual fact. The beginning of betterment can be counted by hours. Within 48 hours, very often within less, a turn for the better blazes up the very dimly flickering light of the chronic sufferer into a bright flame and melancholy sadness gives way to cheerfulness and buoyancy of spirits. An illustration: I was called in consultation to a middle aged man whose symptoms of dyspepsia, pain, loss of flesh, discoloration caused the physician who consulted me and those who preceded him in the treatment of this patient to make the diagnosis of malignancy. To the surprise of all I predicted that the patient will be well in a few

days; he went to work the following week and remained well.

The diagnosis of insufficiencia pylori must be made by the test meal; it must not be guessed. The following is the guide for the diagnosis. One hour after the test meal either nothing or possibly only one or two cc. of chyme is aspirated, which, when present is found to be imbedded in mucus and which gives either a neutral or an alkaline reaction; occasionally such chyme is slightly acid. This constitutes the data for the diagnosis of insufficiencia pylori. But with this knowledge we do not get all the information we necessarily must have. It is still to be ascertained how far has the weakening of the pylorus proceeded. For upon this exact knowledge depends our successful treatment which in all cases must be alkaline. We must positively ascertain how soon after the eating of the test meal does the stomach show no more contents. If there are no contents one hour after the test meal then we give the very next day another test meal and aspirate one-half hour after the eating. If now we should find no contents we give another test meal the day following and aspirate 15 minutes after the eating. So we ascertain the exact condition of the contractility of the pylorus. If the stomach yield no contents even 15 minutes after the eating we then give another test meal and have the patient lie down on a couch on his back, rather inclined toward the left side, the object of which being to keep the ingested matter away from the pyloric orifice. Thus I have found good digestion in the stomach when I could not find otherwise. The treatment in this condition is directed to the bowels and hence alkaline medication in addition to which strychnine in large doses are to be given. I begin with the thirtieth of a grain of the strychnine and rapidly go up to a tenth and even higher.

In conclusion I wish to assert that the chronic dyspeptic should not despair; if his condition is thoroughly understood his chances for complete recovery are very good. 616 Madison Avenue.

HOW FAR IS ASEPSIS AND ANTISEPSIS PRACTICAL IN MINE AND CONSTRUCTIVE ACCIDENTS AND THE BEST MEANS OF THEIR ATTAINMENTS.

By H. G. Steele, M. D., Keystone, W. Va.
Read before the McDowell County Medical Society.

The results which follow the aseptic and antiseptic treatment of wounds have not only made it possible for the general practitioner to undertake surgical work, which formerly would have been impracticable for him to do, but they have forced upon him obligations

in sudden emergencies, which he can not escape.

Moreover, in surgical practice of this coal-field it is often the company physician who must direct the details of the preparation for the operation, assist in its performance, and carry out the suggestions of the regular surgeon in the dressing of the wounds and the after care of the patient. He must, therefore, thoroughly understand the principles and technique of aseptic and antiseptic surgical work, even though he does no operations.

By an aseptic in contradistinction to an antiseptic technique we mean one in which every article that comes in contact with the wound has been previously freed from active organisms, and one in which no chemical antiseptic are employed in contact with the wound.

On the other hand, the antiseptic technique presupposes a certain amount of contamination of the wound, and attempts to destroy, by chemical substances, the bacteria which have gained access to it.

So long as it was supposed that bacteria gained entrance to the wound principally through the atmosphere, chemical disinfectants in contact with it were deemed necessary. And no doubt among some of the operations our older members first witnessed were through plates of glass over the pit of an amphetheatre previously sprayed with carbolic or some other antiseptic solution, but at present but little of that former custom is practiced.

And now we know that infection most always comes from contact, and the exclusion of disease germs from the wound is more nearly under our control.

The use of chemical disinfectants is necessary in the preparation for an aseptic operation, but the antiseptics are used before the wound is made; and some say they should not be used in contact with it. Nevertheless, most of the physicians around here think it necessary for the protection of the patient that injuries of the limbs and external wounds of the trunk and head should be mopped out with a weak antiseptic solution. But it is universally conceded that it is not good surgery to use an antiseptic solution in a clean pleural, abdominal, or cranial cavity. And many times a serous membrane slightly infected would have a better chance to overpower the bacteria if no germicide were used than if an antiseptic solution were brought in contact to destroy the organisms, which is well known to have a tendency to favor the formation of adhesions. In the peritoneal cavity and joints this is especially disastrous.

As an antiseptic, the American Text Book says "the most universally valuable and available is heat." A temperature of 140

degrees F. for ten minutes is fatal to all pathogerm bacteria except the tubercle bacillus and anthrax spores, which require a moist heat of 212 degrees F. for at least four minutes.

Moist heat is far more efficient than dry heat; e. g. the spores of the tubercle bacillus if exposed to dry heat requires for their destruction a temperature of 284 degrees F. for three hours.

Of antiseptic drugs there are a very large number with more or less bactericidal power. Among them should be especially mentioned carbolic acid and bichloride of mercury.

Practically carbolic acid in solution of 1:20 to 1:40, and bichloride of mercury in solutions externally of from 1:1000 to 1:4000 and internally in solutions of from 1:5000 for the irrigation of joints to 1:10000 for the peritoneal cavity, are the antiseptics with which the modern surgeon has to deal. Most surgeons prefer to use boiled water or sterile warm saline solution only in the peritoneal cavity.

Peroxide of hydrogen has been largely used, as an antiseptic, but its practical value has to be determined.

Alcohol and turpentine are two other antiseptics frequently used by the coalfield physician.

And the following may simply be mentioned: Chloride of lime or soda, permanganate of potash, aluminum acetate, formaldehyde, Peruvian balsam and salicylic acid.

Iodoform is undoubtedly useful in many cases in tuberculosis and in inhibiting the growth of pyogenic organisms, but it should itself be sterilized before being used. It is without doubt the best among the powders but has three serious drawbacks; danger of poisoning, the odor and expense.

Boric acid has great disadvantages of being exceedingly painful in some cases and occasionally acting as an irritant.

Under wounds, we may divide them primarily for our purpose into the two great classes of subcutaneous and open wounds.

In the treatment of crushing injuries and lacerated wounds of the extremities, as an example, the point of first importance lies in securing, as near as possible, aseptic conditions.

An individual comes to your office with his finger mashed from falling slate or coal; and upon examination the flesh is found to be torn quite a little, perhaps a bone or two broken. It is cleaned up with soap and plenty of warm water, and when away from the office cold water may be the only available. Foreign particles are removed if possible, but often times the coal dirt is too deeply ground into the wound to be removed without destroying more tissue than if left alone; and as coal is mostly free from microbes,

and being almost pure carbon, the tissues grow around it and wounds heal without supuration from its presence.

The wound is then thoroughly mopped out with an antiseptic solution such as bichloride of mercury 1:1000 or carbolic acid 1:20, which are the two antiseptic solutions most frequently used in this coalfield. Now the dressings used depend upon the physician's choice or fancy. Some put on plain sterile gauze and cotton, instructing the patient to keep them saturated with a 1:4000 bichloride solution, a solution of carbolic acid 1:40 or 1:50 or an aluminum acetate solution. While others use a dry powder such as iodoform, iodoform and boric acid or boric acid alone. Personally, I have seen best results from the use of Ochner's solution composed of a saturated solution of boric acid, six parts; 5 per cent. solution carbolic acid, one part; and alcohol 95 per cent. one part. And I have seen good results from a clean cut wound by using one of the above dusting powders for the first 24 hours, then followed by Ochner's solution or a solution of bichloride 1:4000 till healed. If in addition to laceration of soft parts above mentioned there be a fracture of the bone, a splint should of course be placed preferably outside the dressing.

One of the most important steps in asepsis must not be forgotten, and that is to follow out one of the necessary precautions by thoroughly scrubbing our own hands and arms with a good surgical soap and plenty of warm water, many operators think this the most important, followed by alcohol or turpentine to remove oil thus preventing the formation of albuminoid of mercury when finally soaked in solution of bichloride.

As the old saying is, "a stitch in time saves nine," so it is with us, if we are thoroughly clean with our first and second dressings much pain and labor are saved.

In crushed injuries of the limbs caused by mine or railroad cars, in addition to what has been said above, the lacerated and mangled parts covered with dirt and grease may be soaked for a few minutes in common lamp oil and then thoroughly scrubbed with soap, warm water, etc., and have the instruments used in operating for such injuries are boiled.

In case the abdominal or cranial be involved, the wounds are mopped out with a warm sterile solution of as near the same chemical composition as the secretions as possible. And many operators advise the use of rubber gloves in handling these delicate membranes.

In the limits of time allotted I could not hope to go into details the importance this subjects demands, but if my efforts serves to emphasize the great significance of this, the fundamental work of all surgeons, I shall feel satisfied.

THE PHYSIOLOGICAL EFFECTS OF STATIC ELECTRICITY.

By Otto Juettner, M. D., Ph. D., Professor of Practice at the "Cincinnati Post-Graduate School of Physiological Therapeutics;" author of "Modern Physiotherapy," a text book of physiological therapeutics for practitioners of medicine, etc., etc.

Static electricity is adapted to the scientific treatment of all diseases.

Static electricity if administered by a judicious and skilled operator, is a valuable adjunct in the treatment of many chronic diseases.

Static electricity is a suggestive agent of no inconsiderable efficacy.

These three statements quoted from three different medical text books represent the three camps into which the profession is divided on the subject of static electricity. The morbid enthusiast sprays and sparks his patients for every ill to which human flesh is heir. The skeptic who knows nothing about the subject, but assumes an ex cathedra tone in his denunciation, sees nothing but the suggestive influence of ponderous machinery and mysterious performance. Both the enthusiast and the skeptic is at fault. The former is usually deficient in his knowledge of general medicine, while the latter is positively ignorant about the static machine and its legitimate sphere of usefulness. That this sphere of usefulness is much smaller than the popularity of the subject of static electricity would lead us to believe, can not be gainsaid. Static electricity is far from being a panacea. In point of therapeutic value it does not rank with galvanic electricity, although it seems to be superior to faradic electricity. Its physiological indications, however, are less definite than those of either. There is a larger share of uncertainty and guess-work in the application of static electricity and a correspondingly greater portion of the suggestive element than in either galvanism or faradism. Yet, static electricity possesses certain characteristic features of its own that make it valuable many times and actually invaluable some times. Therefore, the golden mean of conservatism expresses a fair estimate of the subject. There is no doubt that static electricity, if administered by a judicious and skilled operator, is a valuable adjunct in the treatment of many chronic diseases.

What effect has static electricity on living organisms? The life of man is spent within the magnetic field of the earth. The earth is a magnet rotating around its axis and surrounded by induced positive electricity, the earth being the negative element. The particles of solid matter floating in the atmosphere about us, the moisture and vapor that fills space, in many degrees of density, are all

charged positively. All vegetation, using the latter word in its vast biological sense, and including the animal and the vegetable kingdoms, is a phenomenon dependent on and influenced by positive electrical charges. The researches conducted by S. Lemstrom at the physical laboratory of the University of Helsingfors, and by expeditions under his directions in different parts of the world and under varying climatic and meteorological conditions, have demonstrated the influence of positive electricity on vegetative processes. The most interesting feature of his experiments is the fact that he used electricity produced by a Holtz machine with the negative side grounded. He studied the effects of positive charges of varying potentials. His conclusions give to positive electricity of high electro-motive force the greatest biological significance.

There is no doubt whatever that animal and vegetable life with reference to the relative intensity of its outward manifestations, is directly influenced by the difference in potential between the positive and negative terrestrial elements. The higher the potential of the positive element, the more active the processes of animal and vegetable life. Lemstrom shows that plants grow faster, develop better and procreate more plentifully under continued positive electrification. Negative charges at first seem to have a similar effect. Soon, however, the activity seems to lag. This indicates that the vital energy contained in the organism and shown in its growth and reproduction, is closely related to, if not identical with, the positive element which the rapidly revolving earth-magnet induces within its magnetic field. Life on this planet, therefore, is electro-positive.

Translating these biologic considerations into therapeutic language, it would seem as though a positive insulation (patient on the platform charged positively, negative side grounded) represents an arrangement aiming at the preservation of vitality and physical energy. Clinically this is true. Where ever and whenever a tonic-sedative is indicated, the positive insulation is the proper static application. Positive static electricity tends toward structural and functional preservation of organic tissue. In a much more emphatic sense this statement holds good when the potential of the positive current is raised by induction, e. g. by the use of Leyden jars. Thus the Morton wave current may be classed as an agent which is capable of increasing the physiological resisting power of the part to which it is applied. It restores the metabolic equilibrium which is disturbed in all conditions characterized by increased venous and decreased arterial pressure. Passive congestions are removed by improving physiological the "tone" of the affecter region. Pain is relieved because nu-

trition is rectified and toxic material turned into the proper excretory channels. Health has been defined "a condition characterized by perfect equilibrium of arterial and venous blood-pressure." Disturbance of this equilibrium results in locally increased arterial pressure (hyperemia, over-nutrition) or locally augmented venous pressure (anemia, under-nutrition), both conditions resulting in disturbed nutrition of the nerves whose cry for proper nutriment we call pain. Positive static electricity, especially of very high potential, in restoring the physiological tone of the affected area, tend to re-establish the normal equipoise of the two forms of pressure and in this way counteract stasis and relieve pain. If the physiological tone of any region has been completely suspended and the life-principle is fighting for preservation under pathologic conditions (inflammation or its antipodes, "atrophy" or lack of nutrition) positive electricity would be of no avail. All positive static application including the wave-current, should be restricted to conditions which are characterized by lowered tone of the system or any part, e. g. nervous disorders, venous congestions, chronic inflammatory conditions. In making applications of this kind, etiology and pathology are everything. Symptoms have no therapeutic significance.

It is of some importance and assuredly of considerable interest to know something about the physiological *modus operandi* in which static electricity acts upon the tissues of the body. One author states that the nerves of the human system are like tuning forks which will respond to a certain number and strength of force-oscillations. The supposition is that the nervous system is made up of an unlimited number of "receivers," each one being capable of responding to a certain kind of a vibratory impulse. The author supposes that in giving a patient a static treatment, one or more nerves in the body are bound to vibrate in unison with the vibrating force-modalities that are reverberating through the system. It is plain that the explanation is neither physiologically nor therapeutically admissible.

The human body as a conductor of static electricity does not differ from other conductors in the manner in which it receives and stores current or energy. The latter accumulates on the surface of the conductor. It is the skin which is the real conductor, not the nerves nor any other structure of the body. The physiological or primary effects of static electricity are confined to the skin. The therapeutic effects are secondary and follow in physiological sequence the action which has taken place in the skin. The part which the skin plays in the animal economy has been repeatedly emphasized, especially under the head of hydrotherapy.

Analogous to the atmospheric pressure which regulates the intravascular blood-pressure, the functional energy of nerve-tissue is regulated by the terrestrial magnetic field by which we are surrounded. Diminution of air-pressure causes dilatation of the vessels along the external and internal surface of the body. This accounts for the occurrence of hemorrhages especially the exposed mucosa, when atmospheric pressure is decreased. When the potential of the positive magnetic energy is lessened, it diminishes the degree of active control which the nerves, the carriers of life-energy, exercise over the several parts of the organism. Thus the muscular fibres in the blood-vessel walls are relaxed and the vessel itself dilates, the moment the magnetic or electrical tone of the vaso-motors is lessened. This occurs through the cutaneous nerves which are alone exposed to influences of a magnetic character. The skin-nerves receive the impetus, the vaso-motors show its physiological presence. This explanation is analogous to the physiological syllogism by which Winternitz explains the action of thermic stimuli. If the patient receives a negative spray, the positive potential of the region is lessened, nerve-tension decreases, the tissues relax and the arteries dilate. We look upon negative applications of static electricity as being stimulating in character because the arteries dilate and the amount of arterial blood increases. The more the positive potential of the body decreases, the more stimulating will be the effect of a negative static current. The stimulating effect will finally merge into an irritating action as seen by the redness and soreness of the skin which frequently follows negative local applications. If the potential of the body is increased, the electrical action will be restorative, tonic, sedative. If applied to the head, the positive current will cause cerebral anemia and somnolence; the negative current will stimulate, cause wakefulness and mental activity.

The skin is undoubtedly the scene of action of static currents. Through the skin the whole system is reached, a sedative or a stimulating effect being reflected through the sympathetic nervous system as well as by contiguity of tissue. Thus we may produce a distinctly physiological effect on the renal circulation by applying a wave-current to the small of the back in cases of chronic interstitial nephritis. That the static current is of the greatest value in disorders of the skin itself, goes without saying.

A characteristic effect of static electricity is its action on oxygen. Oxygen has an affinity for positive electricity. When a positive charge of static electricity passes through a volume of oxygen, a disintegration of the gas and a re-arrangement of atoms of oxygen take place. A new gas is formed which

has negative affinity and is tri-atomic. It is called ozone and has a characteristic odor. The passage of a flash of lightning through the atmosphere likewise produces ozone (tri-atomic oxygen). Ozone has more powerful oxidizing properties than oxygen. When a positive static spray is administered to the skin some of the oxygen in the tissues and in the cutaneous vessels is charged to ozone and circulates as such, giving to the body but more especially to the exhaled air, the characteristic smell of ozone.

From what has been said concerning the physiological effects of static electricity, we are prepared to summarize the therapeutic indications of the several static currents as follows:

1. Positive static electricity is to be administered to counteract hyperemia, nervous irritability, pain due to congestion, exaggerated reflexes, and all conditions due to over-stimulation. It is a gentle circulatory regulator, nervous sedative and analgesic.

2. Negative static electricity is to be administered to counteract sluggishness of the circulation, lack of nerve-response, pain due to venous stasis (ischemia), absent or retarded reflexes and all conditions requiring stimulation. It is a decided stimulant, excitant and even irritant.

The different methods of applying static electricity are partly a matter of preference on the part of the operator, partly suggested by the character of the case. For general treatments the insulation and the use of the head-breeze are the best modes of application. For local troubles the most useful methods are the direct and indirect spray and the Morton wave current. The operator should endeavor to make a static treatment as agreeable and comfortable to the patient as possible. There should be no unnecessary sparking and shocking. Hats, combs and steel corsets should be removed. There is always a suggestive element in using static electricity. This is a fact which is too well established to be questioned. Let the operator direct the suggestive influence into the proper channel in the interests of the patient. Let the operator's efforts not be confined to this. He should look upon the suggestive effect as being incidental and secondary to a well-planned and well-adapted therapeutic method based on clearly defined diagnostic features of the case and on exact knowledge of the physiological indications and possibilities of static electricity.

IMPOTENCE-TREATMENT AND RESULTS.

By Cornelius McKane, M. D., Ph. D., Savannah, Ga.

Impotence may be defined as the inability to perform the sexual act. The condition is usually found in the male. It is a derange-

ment of the generative function, so widespread in existence that irregular practitioners reap bountiful harvests in gold and silver because the regular practitioners fail to study the condition, which in reality is not a disease but an indication that disease does exist somewhere in the economy. The gravity of the condition is apparent to every reflective mind when we consider that to this cause the peace and harmony of the family circle is often disturbed, the divorce courts enriched, and the race suicide problem further augmented, for underlying most of the family contentions unsatisfied sexual orgasm is the root of the evil. We are therefore, as medical men, to study each case carefully, seek the cause and apply the remedy scientifically and not empirically. For the purpose of this paper the classification of impotence is made in the following order, in keeping with my observation and experience: First, erection, but non-ejaculation; second, erection, but premature ejaculation; third, partial erection, intromission impossible; fourth, complete non-erection.

The causes may be termed functional and organic. Functional: Mental activity, emotions, loss of affection, excessive manual labor, over-stimulation or alcoholic excesses, etc. Organic: Masturbation with resultant urethral stricture, disease of the brain and spinal cord, defects of the genital organs congenital or attained, gonorrhea, prostaticorrhea, disease of the bladder, etc.

Upon the cause depends largely the character of the treatment and the successful outcome of the case. A reasonable fee should be exacted in these cases, for to accomplish any good at all the examination should be slow, rigid and thorough. Men, unlike women, seldom fail to assist the examiner in quest of truth necessary to aid in the restoration of their health, and while it may appear a difficult task on the surface, the regular profession can and will cure the major portion of these cases. It might be well to remember in passing that erection of the penis, its stiffness and rigidity is due to a flow of blood into the glans with resultant dilatation of the arterioles of both the cavernous and spongy bodies, that the nervous mechanism concerned resides at or in the sacral plexus with an inhibitory center in the brain. The idea sought to convey is that the trouble frequently exists in the brain or spinal cord.

I have selected a few cases according to my classification in illustration to better convey my meaning and ideas:

Case 1.—Chas. B., a young mechanic, 22 years old, recently married; thoroughly examined; gave no history of masturbation; health fair; admitted that until the third month of conjugal bliss indulged in excessive venery—from three to six times during a night. His wife accused him of infidelity "because he has changed too soon." I recom-

mended the wife to be sent to parents in the country for a period of three months; assured him he would be well again, that his case was one of plain self-abuse just as much as if he had masturbated; that nature had been outraged and failed to reply because she was tired and exhausted. I lectured him on moderation and convinced him that his condition was largely in his own hands; that prudence and moderation would eventually conquer. I recommended the taking of an egg-nog twice a day, the insertion of the penis in cold water twice daily and light friction, with the following prescription:

R Quininae sulph., gr. xxx.
Acidi arseniosi, gr. ss.
Tinct. nucis vomicae, 3ij.
Tinct. ferri chloridi, ziss.
Syr. simplicis qs., 5vj.

Sig.: Teaspoonful in half wineglass of water three times a day, after each meal.

I followed this line of treatment for over three months. Up to this writing the function has been completely restored. The mother has given birth to three healthy children. Peace, contentment and joy reign in the household.

Case 2.—A locomotive fireman, 32 years of age, consulted me on the 10th of June, 1904, on account of premature ejaculation. He began the practice of masturbation at his seventeenth year and continued until his twenty-first year. His appearance was cadaveric, his movements restless, eyes sunken, memory poor. Urethral examination revealed a tenderness in the whole length of the canal. A stricture was discovered four and one-half inches posterior to the meatus urinarus. He came for treatment because he contemplated marriage. The penis was normal, erection perfect, but no sooner an entrance was made ejaculation took place. His position was always one of shame and embarrassment, so much so that for several months he failed to attempt coitus. The usual caresses of the engaged, in his case resulted in emission. I gave him some active cathartic pills, consisting of

Aloin, gr. 1-10.
Colocynth comp. ext., gr. 1-10.
Nux vomica ext., gr. 1-10.
Podophyllin, gr. 1-5.
Croton oil, m. 1-15.
Capsicum oleores, m. 1-128.

Two to be taken every other night. A warm bath each night. Restricted his diet to milk, eggs, beef and fish, excluding all stimulants. Gave the following prescription:

R Potassii bromidi, 3iv.
Chloral hydr., 3ij.
Syr. aurantii qs., 5vj.

Sig.: Teaspoonful at 4 p. m. and 8 p. m. daily in one-half wineglass of water.

I began dilating the stricture with a No.

14 American bougie, gradually increasing to a No. 28. On the 15th of September I advised the patient to carry out his nuptial contract, which he readily did. Up to this writing he reports full restoration of normal functions.

Case 3.—Harry B., a shoemaker, married, 40 years old, father of three grown boys; present wife his second matrimonial venture, and woman 25 years old; had applied to me as superintendent of hospital, to be admitted as pay patient; requested an examination: Interrogation of his history brought following facts: Never masturbated; married when he was eighteen years old; was prosperous in business, got "sporty" with women, had a "long string"; manhood held good until marriage to present wife; two years after marriage became impotent. Trouble in the family ensued; wife threatens divorce—"What can I do?" Examination revealed flabby, shrunken penis, scrotal bag shrunken, testicles small and insignificant, facial expression one of despair. Urethral examination gave negative results. Examination of the urine gave an acid reaction and an excess of chlorides. He possessed a very long foreskin, and on account of inattention to himself he frequently suffered from balanitis uncomplicated with gonorrhea. I told him he could not be sent to the hospital, for no provisions were made for the treatment of such cases. He then requested me to undertake his treatment, and to attempt, if I could, to establish a truce in the household. I sent for the wife, counselled patience and forbearance, and promised to do my best in effecting a cure. The task I admitted was difficult, but not wholly impossible. We began on the 4th day of March, 1890, with the following prescriptions:

R Liquor potassae, 3iv.
Tinct. buchu, 3i.
Tinct. digitalis, 3ij.
Aqua cinnamonii, 5ij.
Elixir simplicis qs., 5vj.

Sig.: Teaspoonful three times a day.

R Ol. Vini. Morrhuæ.

Sig.: Tablespoonful three times a day, after each meal.

I recommended circumcision, but my advice was refused. The glans was retracted and the foreskin held back by bandage, until it remained permanently retracted. Iron, arsenic and strychnine were given from time to time in combination, alternating the wine of cod liver oil. The patient was seen every other day for three months. The penis gradually became firmer and more rigid. At the end of the fourth month, patient having adhered strictly to advice, remained continent until I permitted him to attempt the act, was successfully performed. He tells me recently that he has had no further trouble since.

Case 4.—A clergyman, 36 years old. had masturbated incessantly for eight years. Upon assuming the function of the ministry reproach of conscience led him to abandon the practice for the past four years. Attempting to lead a life of celibacy, he said, led him into the error. He could not account for a gleet discharge he possessed, for he had never known a woman. He was also annoyed with nocturnal emissions, which averaged three a week. He had read the quack literature of the day, and was so impressed with his impending dissolution and utter worthlessness in life that death he said would bring relief. Haggard, dejected, morose, gloomy and despondent, it was with difficulty I could persuade him that all was not yet lost. The meatus was red, angry and weeping. Urethral examination revealed a stricture five and one-half inches from the meatus. The introduction of the exploring instrument elicited intense pain. He promised if he was cured within a reasonable time, he would abandon the celibacy idea, secure a good wife and devote himself to his profession and atone for the folly of his youth. A preparation consisting of the acetate of lead, 2 grs.; acetate of zinc, 2 grs.; hydrastin mur, 1-20 gr.; morphine acetate, 1-32 gr.; glycerine, 33; inject into the urethral canal twice daily. The diet was non-stimulating, but highly nutritious. Tonics containing iron, arsenic and strychnine were given. The stricture was gradually dilated. At the end of six months the patient was discharged cured.

I have selected these four cases because they fully illustrate my division. There are many others, but the record is not complete and are still under observation, although I am not now treating them.

Impotence is not such a dreadful condition as imagined. I have long since abandoned the stereotyped cantharides and other excitants, which have caused so much trouble in the past, and have adopted the more rational and scientific method to seek the cause and remove it, thus relieving and assisting a class of men to take courage, forget the past, become useful members of society, and bless and cheer their families.

I trust that my feeble efforts in this paper will stimulate the mass of the profession, to whom these erring brothers will come, not to turn them off to the tender mercies of the irregulars, but to study and investigate each case and attempt to relieve, for our obligation demands that we save society not only from her diseases, but from her extinction as well, for impotence leads not only to social disruption but to sterility, and sterility means racial suicide.

POTASSIUM NITRATE.

By John Albert Burnett, M. D., Cecil, Ark.

Potassium nitrate is a cheap remedy and is known to most families, and has been used by many of them to preserve meat. Lately it has been used with sodium phosphate to preserve fluid extracts in place of alcohol. In the July, 1905, *Physio-Medical Record* Dr. Thurston tells how to make and preserve fluid extracts without alcohol. He says:

"The preservative powder is made as follows: Test the fluid with both red and blue litmus paper; if it is found to be acid in reaction, take ten grains each of salicylic and benzoic acid, rub them well together in a wedgewood mortar and add the powder to 32 ounces of fluid extract. If the fluid is found to be alkaline in reaction, take 15 grains each of sulphate of soda and nitrate of potassa, rub them well together and add them to 32 ounces of the normal fluid."

This is a very important matter to remember, for in many cases alcohol is contraindicated.

Scudder, when giving the indications for potassae nitras, says: "Scanty urine, with difficult respiration, difficult deglutition, as from paralysis of muscles of the throat, enlargement of tonsils, burned to relieve asthma gr. v. to dr. ij. to water oz. iv. Dose, one teaspoonful."

In speaking of potassium nitrate *The Manual of Therapeutics* says: "Refrigerant diuretic, diaphoretic, antiseptic, locally an irritant or stimulant according to concentration. A valuable remedy in fevers, especially if of rheumatic character. Is best administered in solution. Dose, 5 to 15 grains."

The following two formulas are made into pills. Each pill contains:

R Diaphoretic morphine acetate, gr. 1-25.
Powd. ipecac, gr. ¼.
Potassium nitrate, gr. 1.
Camphor, gr. ¼.

Sig.: Physiological action indicated by title.
Dose, one pill.

R Digitalis compound.
Powd. digitalis, gr. 1.
Powd. squill, gr. 1.
Potassium nitrate, gr. 2.

Sig.: A heart tonic. Dose, one pill.

The following two formulas are made into compressed tablets. Each tablet contains:

R Diuretic.
Powd. digitalis, gr. 1.
Potassium nitrate, gr. 1.
Ext. buchu, gr. 1.
Powd. squill, gr. 1.
Sig.: Dose, one tablet.
R Pinus Alba Comp.
Syr. white pine bark, m. v.
Syr. wild cherry bark, m. v.
Syr. squill, m. ij.

Syr. seneca, m. liij.
 Syr. ipecac, m. ij.
 Syr. sanguinaria, m. j.
 Camphorated tinct. opium, m. x.
 Potassium nitrate, gr. 1.
 Oil gaultheria, q. s.

Sig.: Dose, one to five tablets.

Potassium nitrate is also put up in five-grain compressed tablets. The following two formulas are put up in chocolate-coated tablets. Each tablet contains:

R Cold (Dr. H. L. Coit).
 Aconite, gr. 1-10.
 Camphor, gr. 1-10.
 Powd. opium, gr. 1-10.
 Potassium nitrate, gr. 1-10.

Sig.: Dose one tablet every two or three hours.

R Diuretic: The same as the diuretic under compressed tablet formula.

Leonard says the action of potassium nitrate is diuretic, cardiac and nervous sedative purgative; in large doses irritant poison; and he gives the uses as follows: Acute and chronic rheumatism, spasmodic asthma, by burning paper saturated with it; locally in chloasma, lentigo, etc.

Potter, in speaking of the nitrate and chlorate of potassium, says: "The mineral salts (nitrate, chlorate, etc.) are not decomposed in the blood, but are eliminated in their own form, the nitrate being the most active diuretic, the chlorate irritating the kidneys and causing albuminuria. In large doses these salts decompose the red blood corpuscles of the blood and paralyze the motor ganglia of the heart. All potassium salts in large doses are cardiac poisons, muscular paralyzers, poisonous to protoplasm, especially to nerve tissues, and destructive to the organizing function of the blood. This is especially true of the bromide."

Potassium nitrate will render the urine alkaline, especially when given with the bicarbonate. At present the citrate and acetate are used more often than the nitrate as diuretics. Potassium nitrate should be used more often, and its use should be more closely studied, especially in regard to preserving foods and in preserving medicines. Lately it has been claimed to be specific for malaria. In an article, "Potassium Nitrate in Malaria," (September, 1906, Medical Summary), Dr. Floyd Clendenen, of La Salle, Ill., has the following to say: "Dr. Peter Buro, of Arva-Pulhora, asserts, as a result of clinical experience, that potassium nitrate is a specific remedy in typical malarial intermittent of whatever form. He administers it to adults in single doses of 15 to 24 grains in the febrile or non-febrile stages, and states that it gives rise to no disturbance of the digestive organs or nervous system. This is an old remedy put to comparatively a new use. To the most of us it is new in malaria. Let us try

it and report results. The remedy is harmless, when used in proper doses at least. Thanks to Dr. Broadnax for calling attention to it."

Our old remedies have many virtues, and it would be much better to experiment with them than to experiment with remedies that we know but little about.

ABSTRACTS AND SELECTIONS.

NEW METHOD OF LATERAL ANASTOMOSIS.

The steps of the operation are thus described by A. Werelins (Journal American Medical Association): (1) Fix by guy suture the opposing surfaces of stomach or bowels and sew with a running through-and-through suture; (2) insert a silk or tissue ligature or silver wire running into the lumen of the bowel; (3) cover the silk ligature by folding adjacent parts of intestines over it and sew with through-and-through suture, leaving the free ends of the silk ligature on the outside; (4) an assistant holds the united tissues firmly on the opposite side of the free ends of the ligature. By alternate pulling of the right and left ends of the silk ligature, the tissues are neatly cut through and an anastomatic opening is made, the thread escaping through the minute slit between the sutures. Take one more stitch where the thread slipped through and the operation is complete. The advantage of the method is that by the last-named manœuvre the bowel is cut through without exposure of the mucous surfaces while the operation is complete at once and leaves no foreign body.

THE HUMANE TREATMENT OF MALIGNANT DISEASE FROM A SURGICAL POINT OF VIEW.

John C. Monro (Boston Medical and Surgical Journal) here presents a plea for more frequent interference in incurable malignant disease. He himself, as time goes by, becomes more and more willing to operate in cases in which there is the smallest outlook for relief. In dealing with cancer, neither surgery nor any other form of treatment is yet able to assure permanent relief in more than a small percentage of cases. Surgical cure depends upon the locality of the growth and upon the stage at which the operation takes place. The writer believes that there are enough desperate cases only temporarily relieved by operation to make it not only worth while, but a duty to hold out these chances to such patients. Unless the surgeon can absolutely and definitely make a diagnosis of inoperable malignancy, especially when dealing with

the abdominal cavity, it is safer to explore for absolute conformation. And when the diagnosis can be made which condemns the patient to death, then most of all, exploration should be made. However, to operate for diagnosis without first using all other means is wrong, and ought to be condemned. The writer cites certain cases in which the diagnosis of malignant disease was proved by operation to be wrong. On the other hand, many cases of unquestionable malignant disease have been entirely relieved by operation of distress and suffering, and this for weeks and months until death came quietly from a general malignant toxemia, a state of affairs which would have been impossible without the operation. In regard to cancer of the intestine, the writer believes that we should be very conservative in committing such cases to medical treatment. In 43 cases of cancer of the rectum, Czerny lost only 3 by operation, the remaining 40 living from 40 days to 3½ years. In cases of cancer of the colon there is a quiescent period between the appearance of the first symptoms and the last fatal issue. It is inhuman to remain inert during this period. In Nothnagel's last edition, it is stated that the only way to arrive at a positive diagnosis in abdominal cases with indefinite symptoms is to perform an exploratory laparotomy. Surgery is indicated at the earliest stage. Cancer, wherever situated, is a surgical disease. The action of the Coley serum is still too uncertain for employment except in cases beyond surgery. The writer believes also that the X-ray is already doing more harm than good, except in very limited types. The writer appeals to the surgeon for more optimism in dealing with the apparently hopeless cases.

THE DIAGNOSIS OF PERFORATED DUODENAL ULCER.

H. S. Clogg (British Medical Journal) says that perforated duodenal ulcer has only on rare occasions been diagnosed. Symptoms of perforative peritonitis occurring in a person in previous good health, particularly a male subject between thirty and fifty years of age, the early symptoms being marked in the upper region of the abdomen, should excite a suspicion of duodenal perforation.

Should these symptoms occur in a person who has previously complained of gastric disturbances, however vague it may be, the suspicion is greater. In the very acute perforating duodenal ulcers the differential diagnosis from gastric perforation will be impossible. Gastric ulcers generally perforate in young anemic women; duodenal ulcers in men between thirty and fifty. But this is by no means constant.

Symptoms of acute perforative peritonitis of epigastric origin and spreading down to

the right iliac fossa, simulating an acute appendicitis, are frequently seen in duodenal perforation, but very infrequently in gastric perforation. In these cases it can generally be noticed that the early signs are referred to the upper abdomen; the iliac fossa is only secondarily involved. Rigidity at first is in the hypochondriac region, and only later in the iliac region. The initial shock is more intense generally in acute perforative appendicitis, and septic poisoning is seen earlier in the history of the case.

An acute appendicitis may travel from the iliac fossa to the right hypochondriac region, and thus simulate a duodenal perforation. The earliest signs here are in the right iliac region and only secondarily located in the hypochondrium. The similarity of duodenal perforation to acute appendicitis must be borne in mind, and by attention to the onset, the early site of pain, the area of rigidity, and the initial higher fever in appendicitis, a correct diagnosis will generally be arrived at.

The occurrence or not of hematemesis or melena should be inquired into. A previous history of melena only suggests a duodenal perforation.

It is easier to exclude other causes of perforative peritonitis than a duodenal ulcer, and by exclusion a perforated duodenal ulcer ought to be more frequently diagnosed.

THE BLOOD IN CONGENITAL HEART DISEASE.

An interesting and fairly constant symptom accompanying the cyanosis of congenital heart lesions is a marked increase in the number of red blood cells. In a series of cases observed by E. Fromherz (Munch. med. Woch.) figures as high as 9,800,000 were obtained. In one case where the autopsy subsequently revealed pulmonary stenosis and open foramen ovale, a peculiar attack was noticed several months before death. The patient suddenly became almost completely black in the face and suffered from extreme dyspepsia, while the heart action was heaving and the pulse strong and hardly increased infrequency. Probably the dilatation of the right auricle had taken place and most of the blood had passed directly into the left auricle and from there into the general circulation, instead of right ventricle and pulmonary circulation. The increase of red cells is to be looked upon as a compensating change. Since the amount of blood flowing through the lungs is less than normal each given amount of blood must present a large oxygen-absorbing surface to meet the demands of the body. Despite this, cyanosis is common since the number of red cells in each cubic centimeter has its limits and can rarely exceed 8,125,000, if the cells are of normal size.

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EDITORIAL.

MEDICAL RECIPROCITY

This refers to the question of one State board recognizing the license of another. Reciprocity among State medical boards is a recent idea, less than five years old, according to one of our esteemed contemporaries. It has made rapid progress, but not nearly so rapid as it deserves. There is absolutely no sense in the fact that a man be licensed to practice medicine in one State and not be legally qualified to practice medicine just over the line in another State. For instance, New York does not recognize licenses issued by the State of Pennsylvania, hence a doctor may be a legal physician on the Pennsylvania side of the line and an illegal practitioner on the New York side. Everybody knows that Pennsylvania has done and is doing more to encourage medical education than the State of New York. Everybody knows, too, that Pennsylvania has as many able physicians within its boundary as the State of New York.

This freak of legislation is a relic of former times. Those responsible for such conditions evidently do not know that the United States is a nation. They probably have not yet learned that United States money is good in any State in the Union, and the license of a physician who has graduated and passed the examination of a State board should be good in every other State in the Union.

The profession at large desire reciprocity, and it is in their power to obtain it. Their own indifference is responsible. If the physicians act together, they can obtain almost anything in the way of legislation, but the great mass of them are so engrossed in the little details of their calling that they neglect the larger affairs which concern the whole profession.

GENERAL PARALYSIS OF TUBERCULOSIS.

Dr. Klippel, in *Revue Neurologique*, divides general paralysis arising from tuberculosis as follows: First, tubercular encephalitis, distinguished by tubercular bacilli in the meninges or in the brain and meningocephalon. These tubercles are discoverable by the microscope in a meningeal exudation, or larger and scattered here and there in the brain or upon the walls of the arterial trunks. In every case they are accompanied by degenerative lesions diffused through the cord, caused, without doubt, by tuberculous toxine, and explaining by this very diffusion the presence of the paralytic syndrome. Second class, degenerative encephalitis developed by the diffused action of the tuberculous toxine, but in this class no specific tubercular lesions are encountered in the brain. Third, infectious encephalitis, the origin of which is found in the microbic parasites of the lung cavities. The observations upon which this division is founded have established the tubercular origin of certain classes of general paralysis. The part played by tubercular auto-intoxication in the paralytic syndrome has elsewhere been shown by the writer to have similar effect in amyotrophic neuritis and the delirium of tuberculosis. In a new case Dr. Klippel wishes to show that a general paralysis, absolutely undeniable as to its symptoms and its development, results from tuberculosis, and further, that there exists a paralytic syndrome, and not merely a general paralysis, a morbid entity springing exclusively from the same morbid cause. The case alluded to has served to convince the most antagonistic minds of this double inference, so clear and precise is the presentation of all the facts.

From the clinical standpoint, the patient in question has been observed by many alienists of eminence, and their conclusions are unanimous. From the anatomical standpoint there was found in the lungs a tuberculosis

of long standing, spreading to the ganglia of the mediastinum. In the brain was noted, first, the absence of the lesions described by Boyle, whose description, now classic, applies only to the inflammatory form of general paralysis; second, scattered throughout the brain, the cerebellum and the mesencephalon, great cheesy tubercles, with encephalitis and meningitis in the immediate neighborhood. From the histological view, apart from the infected adjacent regions, there was no trace of diapedesis in the brain, save only diffused degenerative lesions.

The patient, aged 33, died in May, 1904, at the asylum of Villejuif. The autopsy was made by two internes of the hospital, and eight certificates state that the patient presented the syndrome of general progressive paralysis. Among these symptoms were enumerated enfeeblement of intellectual faculties, with apathy, indifference, turbulence at intervals, unequal pupil, muscular feebleness, diminution of memory and embarrassment of speech. The disease had lasted about three years, and had been marked by a slightly progressive development. In the course of the disease, when all the physical signs of dementia were appearing, there occurred two apoplectic attacks, and at the beginning of one and the end of the other there appeared some fugitive paralytic troubles of speech and of limbs. Finally, after the patient was confined to the bed, death was preceded by a semi-comatose state, with a slight deviation of the right labial commissure, some violent fits of nystagmus, exaggeration of the knee-jerk and slight ankle clonus.

Here, then, is a new and incontestable proof of a possible tubercular etiology of general paralysis. A conclusion that separates this case from other observations is that general paralysis, undeniable because of the sum total of its symptoms and its progress, is due to lesions of such different character. General paralysis is not the borderland of all mental ills, as Esquirol has it. It is not even a morbid entity, whose cause and lesion are always the same, as Boyle defines it, whose observations, however, seem to comprehend only the inflammatory forms. According to Dr. Kippel's researches, general paralysis is a clinical syndrome characterized by a totality of signs and by an evolution which are the same under the influence of divers pathogenic agents acting upon the brain under certain conditions, pathogenic agents, which, however, here and there produce other syndromes.

THE HEART.

The brain is about as wonderful a bit of mechanism or functioning organ as we have in the body. We can scarcely conceive of its greatness, and the more one studies it the more he marvels at its intricate makeup and

the close association of motor and sensory fibres so close together that it is a wonder that our many indiscretions do not produce more disease or degeneration of the nerve sheaths and hence, as it were, short-circuit a few of the wires contained therein. As an organ of the human body it is, perhaps, the most intricate and the most wonderful. But there is a more important organ, and quite a wonderful one at that, and that is the heart; our cardiac or vascular pumping station never stops while the rest of the body keeps in motion, and lives, it still works and toils on. The brain to it is nothing more than a machine into which the blood enters, as steam into a machine, and bids it turn out the energy it manufactures. As the blood is sent by the heart to the liver, and it in turn manufactures bile, glycogen, etc., so when the heart sends blood to the brain it in turn manufactures thought, motion, sensation, etc., each one of these body machines doing its office. How alike it is to a large manufacturing establishment. Coal is as food, which, with water to the boiled and engines, forms the metabolism of the factory, for the energy supplied may make one machine saw, another grind, another chop, another smooth and finish, and so on until some definite work is done in some definite direction. So it is that food and water feed the muscular system of the body, and especially cardiac muscles, so that the heart distributes force and energy to the different machine organs, which each turn out a different sort of product—enzymes, bile, motion, hearing, sight, etc.

A layman recently asked a doctor something about the heart and its work and mechanism. He was told in a simple way of the right and left heart carrying different kinds of blood, not mixing because of the impermeable septum (except in the embryo or early life of foetus) and of the fibrous ring between the auricles and ventricles which lent attachment to the cardiac muscle. He was told that the heart was a simple pump to keep a fluid in motion through the pipe system of the arteries and veins. The process appeared simple, and the simpler we keep it the better physically and healthfully we exist.

The one prime condition to cardiac perfectness in health is that the pressure be kept up in the vessels and in the organs. It is natural for the heart to do this, for we have evidence of its enlargement and increase in force in nephritic inflammation, when we have a water-hammer pulse, as also when a valve leaks and we have hypertrophy to overcome the backward loss of blood during diastole. We also have the equilibrium disturbed when there is a stenosis of a valve or opening (or exit) and an increased systole is necessary to force all of the blood out through the narrow opening. It takes more

force to force the same amount of liquid through a smaller hole in the same allotted time than it does through one larger. Under this strain the heart must necessarily weaken or be built up to accommodate, and we say the heart compensates. That is, compensation in the human body means the keeping up of the function of the organ in question by increase in the size or function. Hypertrophy occurs, and sometimes a hyperplasia. Do not athletes, who force a lot of excess exertion on their bodies, have what is known as athlete's heart, or do not their muscles hypertrophy, and sometimes, although large, their muscles are weak and their wind poor? And when they stop their athletics and try to resume again they find they are not in the condition they were when they originally entered the field. Now, as to treatment of these hearts, the period of rest and dilatation is shortened and the systole or contraction is also shortened, for the heart usually makes 110 or 120 beats to the minute, and hence has to hurry. Drugs which slow the heart, lengthen the diastole and strengthen the systole are the desired medication, but one thing must be remembered—that drugs which have a cumulative tendency are to be either carefully used or not at all; better not at all, for there are remedies which do the work and have no cumulative action. Digitalis and its glucocides must be watched with care, while such agents as anasarcin can be given over any length of time with impunity. The simpler one argues the derangements of that pumping station and tries to place it in good running condition with as little work on it as possible, the better doctor is he going to be for hearts, and in this life hearts are "trumps."

PICRIC ACID IN BRAIN FAG.

Dr. A. L. Waltz, in the Cleveland Medical and Surgical Reporter, says that the proving of picric acid develops the following symptoms: Is so tired can not think or study. Does not care to talk or move. Can not read because it makes the head so tired. The eyes are sore and ache after mental labor. For this symptom glasses are worn by many mental workers and prescribed by opticians, with some relief too, but do not forget picric acid for a cure. Pain in the occiput and nape of the neck, possibly extending down the spine. Headache and nausea on moving the head, a symptom of bryonia, but bryonia does not have the mental fatigue or prostration. A feeling of confusion in the nape of the neck. So very tired; legs are weak and so heavy that it is with the greatest effort that they can be moved. All these symptoms are worse after mental labor.

The symptoms just enumerated present a very good picture of nervous prostration. We

will have to differentiate between such remedies as phosphorus, phosphoric acid, nux vomica, etc., as they have many similar symptoms.

All acids have great prostration and in that respect resemble picric acid, but phosphoric acid comes the nearer, so that attention will be called to that first.

Phosphoric acid has great prostration, due very often to excessive mental labor, but more apt to be due to some great grief or affliction, like that of ignatia, but this differentiation should be kept in mind, viz., ignatia is for acute or recent grief, phosphoric acid for chronic. Phosphoric acid has for its underlying cause, too, a history of sexual abuse.

Phosphorus has brain fag, but not the prostration of picric acid, but rather has great nervousness. If there is prostration it also has irritableness, which is not true of picric acid.

Nux vomica is often given for this condition, undoubtedly because of the history of a "sedentary occupation." While it is often indicated in such condition, it does not have the prostration, and besides it would require some gastric symptoms to make its indications complete. Silicea zinc and sulphur should also be studied.

My clinical experience with picric acid has been very flattering. Two recent cases have been school teachers. One began treatment nearly in the middle of the school year when she had about concluded to abandon her school for the balance of the year, with the hope that the rest would restore her health. She had had the tonic treatment with temporary relief at times, but on the whole growing steadily worse. The fatigue was such that the thought of entering upon her school work in the morning was a dread, but by the exercise of her will-power and persistence, the forenoon was passed, with a rest and sleep at noon. The afternoon was passed much in the same way, the evening being spent in rest and sleep, being too tired to go out, or spend the evening in a social way at home. Besides the tired feeling and great sleepiness there was a pain in the nape of the neck; pain in the eyes; legs tired, etc. Picric acid was prescribed in the third trituration and at once there was improvement, and with the loss of only a few days, she continued until the close of the school year. This was proof that the condition could be cured if the properly indicated remedy was prescribed.

The other case had similar symptoms, but came under treatment at the close of the vacation period. The symptom most complained of, as in the other case, was that "tired feeling," both mentally and physically. Had no pleasure in going anywhere because she was so tired. Had taken strychnia sulph. and other tonics without improvement. Picric

acid was prescribed and the improvement has been continuous from the beginning.

DETERMINING THE SEX.

Dr. A. M. Cushing, in a recent lecture, says that in entering this field there are but a few footprints, and most of those were made by speculators, and the more foolish the suggestions made the more profitable the speculation. Taking that as a basis you may say, I ought to make a million. In reproduction we can in no way discard the germ theory, and there is one idea we must follow. If you desire good grain you must sow sound, well ripened seed, or germs. Every farmer knows if he cheats in the seed the crop will cheat him. Going from the farmer to the stock-raiser, what may we learn? The riper or more mature the seed or ovum the stronger the animal. And what is the stronger? The male every time; and by this knowledge certain strains or breeds have been perpetuated. There must be a period similar to menstruation, and the cattle breeder watches for that, and if he wishes for a female he takes the first opportunity to secure that end. If a male is wanted he waits till a later day, for a riper, more mature ovum. Look at the fowl. The hen lays eggs of a different size. Does the breeder select the large eggs for a female? Is it something in or outside of the egg that influences the size? Having known something about the methods of cattle breeders before I began the study of medicine, for over fifty years I have carefully watched the results in the human. In what might be called a large obstetrical practice and a careful study of the cases, I believe that if conception takes place before or at the beginning of menstruation, it will be a female, and if after menstruation, and the later the better if it does take place, it will be a male.

I have noticed this, if a child is born a few days before expected (except in accidental cases) it will be a female. If some days later than was expected it will be a male. I have attended a lady when a boy was born, and a year or more later, without the menses having appeared, a girl was born. I had one peculiar patient. She was so determined no child should be born, at every menstrual period she examined the flow till she found the ovum. She said she always found it. Imagine her surprise and disgust when a menstrual period returned there were some symptoms of its return, but nothing more. Nine months from that time a girl was born. She had no more. In my practice I have had an opportunity to make some quite correct observations. In one family where I was the attending physician, the mother was anxious all her children should be boys, and the father did not object, and my opinions were a law to them. At three different times I ex-

pected my services would be required at a certain time and the nurse was engaged for that time, and at each time we met as expected, and each time it was a boy. At one time a prominent gentleman asked me if I believed the sex could be predetermined. He was the father of two girls. I told him yes, and gave him my views. Later a boy was born. In relating this to a well-known gentleman, the father of two girls, he said that interested him, as they had hoped one of the children would be a boy. He said the opinions of his wife were exactly opposite to mine. I told him that explained why both of the children were girls. About a year later a boy was born. Some cases may be quoted that seem to disprove my theory, but there are often uncertainties in such cases, and all other theories have been mostly failures. It was suggested that there might be a median line, and that may account for the manly woman or effeminate man.

EPILEPSY.

The nervous system is a peculiar combination to some, while to others it seems fathomable. Many scientists plunge into the depths of study and avail themselves little of a better understanding of its physiology, pathology and functions. Its anatomy is interesting and can furnish one food for a life-long study. Its peculiar susceptibility in some persons and its total immunity to the same excitants and depressants in others make it seem incorrigible. We have a great big mass of nervous tissue in the brain and spinal cord, which is our power plant of life. As an electric power station generates a live current that when needed can be immediately and instantaneously thrown into circulation or action and when in working order never falls. A wire circuit to a motor ten blocks away will, when the switch is turned on and the current live, immediately start that motor and we have power. The power is vastly beyond that conceivable as emanating from two so small a pair of wires, but we find it so. So also do we have the human brain capable of sending power to a muscle in a remote portion of the body and impressions transmitted to the brain from a remote site through motor and sensory nerves. Now suppose we had two wires coming from a very powerful electric generator (dynamo), and these two wires were touched together (short-circuited), a great shock would be suffered the machine, and it would probably burn out. Although the touching of two nerves together would not shock the brain, still any too strong an impulse from somewhere on the periphery would cause the brain discomfort, and the normal impression of that impulse that should be is not received. Now, the brain has a compensatory advantage over the

electric generator. A fuse wire, so called, which is a soft metal wire, of a low melting point is placed in the electric circuit, so that when a short circuit is occasioned the heat of the current melts the soft wire (lead or solder), and the current is broken and no damage is done, for the current does not reach the delicate machines. In the brain no provision for preventing the reception of an untoward impulse from reaching it is to be had, but the brain accepts it and holds it in abeyance. The brain is capable of receiving, for a certain length of time, impressions from a certain point of peripheral irritation (such as the ovary or adhesion around the prepuce in young boys and girls) when it will have to ease itself. This it does by discharging its store of impressions, which discharge, on reaching the periphery, causes a convulsion or fit. The parts affected at the periphery correspond to those supplied by the nerves emanating from the site in the cerebral cortex, in which there is an excessive store of these impressions that are foreign and unfriendly to it. Such a condition we have in epilepsy in all of its varieties, as well as in the graver migraine affections. Say a person receives a blow on the head, and the outer table of the skull is not fractured. Many a surgeon finding this condition, closes his skin flap and says he finds no fracture. He is right; he finds no fracture, but he has many times a fracture contra-coup, or the internal table of the skull is broken slightly. The former has comparatively little to do in causing a point of irritation to the cortex, for it is usually a long crack in the bone (linea fracture), and does little harm except when it extends basilar and involves any of the cranial nerves or vital centers. The fracture of the internal table causes, when it does harm, a spicula of bone to press on the cortex, and the irritation is stored there until the discharge from that site causes a fit. In treating these conditions the cause must be removed if possible, and often it can not, hence we prescribe a depressant. The object in prescribing a depressant is to allay or neutralize the irritation at the site of increased area. Suppose, for instance, that on the cerebral cortex, where the center for motion of the arms is there a fracture of the internal table leaving a spicula of bone from the internal table pressing on that center. The person will not have any need for the use of the arm many times when the irritation is at that site, and hence the arm is not used, but the impulse of stimulation is thereby irritation. The brain will only stand a certain amount of residual force stored there, and when the capacity is reached, then there is a discharge of that excess of impulses, and in the convulsion which ensues there will be more activity of the arm than any other part of the body, though there will be associated movements. In all cortical irritations the

point of irritation is sometimes extremely peripheral, as in the ovary or glans penis or clitoris, and in all such cases, if possible, remove the cause then prescribe a good depressant. The bromides theoretically should apply, but are uncertain in their action, hence should be administered with some adjuvant. Bromidia is an excellent mixture of bromides, chloral, hyoscyamus and cannabis indica and will be found quite of service in these cases.

Abstracts and Selections—Continued

RESPIRATORY AFFECTIONS, SYMPTOMS AND THEIR TREATMENT.

Justin Herold, A. M., M. D., writes: Mathematical precision, it must be admitted, has its place no less in medicine than in its legitimate field in the study of the higher classics. This precision, in the therapeutic sense, applies to the exact dosage of preparations used by the busy practitioner in his every-day experience. How often do we attain proper results from the use of drugs; how often results that are not only improper, but even dangerous? Precision in dosage can only be obtained by constant study on the part of our co-laborer, the pharmaceutical chemist—study embodying experimentation, the comparing of results, re-experimentation, and finally, the circulation of the decisive product in the hands of the practitioner.

The past few months have afforded me, and no doubt others, opportunities to test the efficacy of the therapeutic qualities of the various remedies vaunted as certain to relieve the harassing symptoms attendant on the diseases produced by the bacillus of that nineteenth-century infant, "La Grippe."

I refer to this epidemic particularly, because it had not manifested itself in such virulent form since the memorable grippe epidemic of 1889. The author of this paper, in the past few months has had occasion to employ the several preparations recommended for the relief of the distressing respiratory symptoms attendant upon "la grippe." These manifestations, from my view-point, have been characterized principally by cough and dyspnea, in other words, "dyspneic cough." Expectorant mixtures, anodyne solutions, together with hypodermic medication, produced in me a disgust; and why? Simply and undeniably for the reason that the ordinary cough mixtures contain the opium preparations in such combinations as to leave a depressing effect, which, especially in cases of the grippe of the "depressing or melancholic" type, enhances the already depressed feeling. Combinations of expectorants with stimulating ingredients had no less the same effect.

The feelings of the physician are not

heightened when his "stand-bys" serve him so poorly; neither are the feelings of the patient calculated to give him increased confidence in his physician. Where lies the fault—in the opium, in the morphine, in the codeine, in the heroin? No, the fault lies in the unstable (or whatever you may call it) combination, or ill-combined ingredients. In seeking for a remedy to relieve the harassing night cough of an attack of "bronchitis due to gripe," in a member of my own family, I chanced to come across a preparation of heroin, which, of all remedies tried, gave relief. I refer to Glyco-heroin (Smith).

Glyco-heroin, in all cases in which I have used it, has never caused vomiting, an important point for the physician. Is not the stomach the physician's best friend in the treatment of diseases other than obstructive or malignant affections? Another important point noted was that this preparation of heroin—Glyco-heroin (Smith)—never played pranks with the structures composing the vaso-motor system. Now, what do we, in treating disease, want in addition to a good stomach and a stable nervous attachment? We want rapid action. That I effected through the use of Glyco-heroin.

You can not produce toxic effects with this preparation, as its effects are lasting, and in most cases do not necessitate the use of the drug at very frequent intervals. Glyco-heroin allays cough, without doubt better than any remedy I have used this winter. And that without the sometimes disastrous results of other preparations of the papaver group. Respiration is stimulated, not in number, but in the depth of the inspiratory act; thus full and complete oxygenation takes place, an important adjunct to the helpful effects of drugs in general, and saving the patient that expensive tank of oxygen. Given full and complete oxygenation, all other symptoms must accordingly diminish; thus temperature and pulse-rate are reduced to a normal condition. Elimination of noxious products not being interfered with, the excretion of urine is brought to the normal under the use of Glyco-heroin. It is well known that diminished quantity of urine follows as a result of inflammatory diseases of the respiratory tract; thus the standard quantity of urine is enhanced by the judicious use of Glyco-heroin.

PURPURA FULMINANS FOLLOWING SCARLET FEVER.

Herbert E. J. Bliss (The Lancet) gives a summary of the clinical and pathological features of a case of this kind, interesting not only because of its great rarity, but also on account of the difficulty of distinguishing it from hemorrhagic scarlatina. The child had a very severe attack of scarlet fever, which did not present any unusual features, and con-

valescence appeared to be established. He still had some ulceration of the soft palate, but the other symptoms had either passed off or had much abated, the temperature was settling down, and he was bright and comfortable. At this point cutaneous hemorrhages in enormous abundance took place, accompanied by hematemesis, bloody stools and oozing from the gums. In thirty-six hours from the appearance of the first hemorrhages he was dead. The chief feature of the post-mortem examination was the state of the kidneys. These were transformed almost entirely into fat, a small blood clot being found in the calices. This blood clot must have been very recent, as none was found lower down the urinary tract, even the urine in the bladder being free from blood.

RESULTS OF FIFTEEN HUNDRED OPERATIONS FOR A RADICAL CURE OF HERNIA IN CHILDREN.

Bull and Coley (Medical Record): Lessons drawn from such an immense number of cases must be of undoubted value. In cases under four years of age operation is usually not advisable, since a majority of these patients can be cured by a truss. After this age an operation is almost always indicated, since there is practically no danger in it. It is no easier to cure hernia by operative means in children than in adults, and these authors have had a larger per cent. of recurrences in these cases where the cord was not transplanted. Hence, they strongly advise this step in the classical Bassini operation. They do not favor excision of veins. They say that recurrences, if seen at all, are usually in the first six months, and 90 per cent. occur during the first year, if at all. They use as a suture chromicized kangaroo tendons.

THE FAVORABLE TIME FOR OPERATION IN APPENDICITIS.

Koerte (Archiv. f. Klin. Chir.) The exact diagnosis of the pathological condition of the appendix can not be made in the acute attack. Indeed, all the symptoms can mislead us, but of these the most reliable is muscular tension. In Koerte's work the mortality was 18 per cent. during the first two days, and 36 per cent. when the operation was done upon the third day. From this it is very easy to conclude that the operation should be done during the first forty-eight hours, if this be possible, and should be avoided later than this time if it is possible to get the patient over the interval. Later consequences of the attack are abscesses, phlebitis, subphrenic abscesses, pyelitis, empyema and dangerous adhesions. Most of the above, as the author very rightly states, can be avoided by a properly done early operation. After the third

day a simple opening of the secondary abscess can be done with a mortality of little more than 5 per cent., although a radical operation late in the attack is about 16 per cent. mortality. Where there is paralysis of the bowel the mortality is 60 per cent., but is 77 per cent. where no operation is done, the conditions being similar. For interval operations the mortality is only 1 per cent. These figures are certainly of value to any surgeon in choosing his time for operation.

PSYCHIATRY IN ITS RELATION TO OTHER SCIENCES.

Charles L. Dana (American Medicine) shows the relations of psychiatry to its nearest allied sciences—economics, psychology, physics, neurology and internal medicine, pathology and physiologic chemistry, criminology, forensic or legal medicine, and anthropology. He indicates the lines along which work can be carried with mutual help to all, and especially to the advancement of a sounder knowledge of that capstone of all medical sciences, the pathology of the mind.

ENDEMIC OCCURRENCE OF MYELOID LEUKEMIA.

Arusperger (Muenchener med. Wochenschrift) observed in his clinic three cases of typical myeloid leukemia within two years from the same neighborhood. This prompted him to investigate further to see if there were other cases in this community, and whether there was an etiological factor which could explain their existence. He discovered two other cases there, and succeeded in obtaining from physicians the histories of six others. He was unable, however, to find any definite cause for their existence. The conditions in and around Pforzheim and Muhlacker, where the cases occurred, were just about as they were in other small towns in Germany.

ON RUBIDIUM SALTS WITH SPECIAL REFERENCE TO THE USE OF RUBIDIUM IODIDE IN OPTIC ATROPHY.

P. Bartholon (New York Medical Journal) gives a brief account of the chemistry of the rubidium salts. The iodide has been used chiefly in syphilis as a substitute for potassium iodide when the latter was not well borne and in cases of heart disease. The author finds that a five per cent. solution in distilled water is non-irritating, highly diffusible, withdraws water from the circulation, and causes a vigorous movement of the red cells toward the site of application and that there is a marked chemical activity of the ions of rubidium and iodine freed by the dissociative force of the aqueous solution. The latter may be painlessly applied. The author has

employed it in this manner in one case—that of a man with tabes, suffering from concentric diminution of the visual field with progressive loss of sharpness of vision. The results after a three weeks' use of the remedy were distinctly noticeable in the way of improvement. The author is not unmindful of the fact that sudden changes for the better sometimes come spontaneously in the group of symptoms mentioned, but he is inclined to give the rubidium salt a share of the credit and to persevere in its employment with the hope of defining its positive action.

EPILEPSY AND HYSTERIA.

Putnam and Waterman (N. Y. Med. Jour. and Phila. Med. Jour.) call attention to the great difficulty that may occasionally arise in attempting to differentiate epilepsy from hysteria. A number of cases are reported in order to illustrate the methods of investigation by which the authors believe that a correct conclusion may generally be reached. They advise that every neurological staff of dispensary and out patient services should embrace one or more members skilled in psychopathical researches by whom all doubtful cases should from time to time be reviewed in order that no injustice be done to the patients.

AUTOPSY FINDINGS IN EPILEPSY.

B. Onof, Sonyea, N. Y. (Journal A. M. A.), reports the results of careful autopsies on sixteen epileptics at the New York State Institution for Epileptics. In twelve cases there were valvular changes of the heart, most frequently of the mitral valve (80 per cent.), less so of the aortic and still less frequently of the tricuspid valves. These he considers generally as secondary results of the special strain due to the major epileptic attacks. Capillary changes, tortuosity and aneurismal dilatations were observed in several cases, and were attributed to the same causes. In eight of the cases where the lungs were examined, there was acute pneumonia as a contributory cause of death. The cerebral changes were very striking. In ten cases there was a marked thickening of the pia chiefly over the frontoparietal lobe. In other cases there was vascular lesions, circumscribed atrophy of one frontal lobe, subdural hemorrhage (one case), internal hydrocephalus (one case), cerebral cyst (one case) and shrinkage of convolutions of vermis and adjoining cortex (three cases). The most striking changes, however, were noted in the thalamic region. These were in the nature of atrophy, sometimes the pulvinar, sometimes the other portions being most markedly affected. There was also an apparent discrepancy in the proportions of the geniculate bodies. Onuf dis-

cusses the possible relations of these thalamic changes to the epilepsy, but does not venture to express an opinion as to whether they are directly connected with the seizures or are only part of a general pathologic condition of the brain. He suggests that there was probably an optic atrophy in some of these cases, and hence the importance of fundal examination in epileptics. The importance of good clinical histories in these cases is also emphasized.

THE PATHOLOGY AND TREATMENT OF DIABETIC GANGRENE OF THE LOWER EXTREMITIES.

H. J. Whitacre (New York Medical Journal) says that an endarteritis obliterans is the main etiological factor in so-called diabetic gangrene.

In the absence of such arterial change it is believed that gangrene of the lower extremity will not often occur in diabetes.

The form of diabetes presented in this type of case varies considerably from true diabetes mellitus.

An expectant line of treatment should be followed as long as the gangrene is confined to the toes.

Amputation above the knee should be done as soon as the gangrene process involves the dorsum of the foot.

GONORRHEAL PUERPERAL FEVER.

In summarizing the chief essential points regarding this condition, Fred. J. Taussig (Amer. Gyn.) gives the following as the most important. The gonococcus is the etiological factor in about one-sixth of all cases of puerperal infection. Although secondary to a gonorrheal infection elsewhere, this trouble involves an infection of the puerperal wounds, and hence must be classified under the head of puerperal fever. The gonococcus may gain access to the uterine cavity without any internal examinations being made. Many a case of so-called autogenous infection may be explained in this way. More frequently the process is brought about by digital manipulations and operative procedures, particularly intrauterine, in the delivery of the child and the placenta. The infection shows itself about the fifth or sixth day postpartum, by rigors, a temperature of 103 degrees F., and a severe abdominal angina. The fever is usually of short duration, and the further course of the disease is mild, but liable to become chronic. The cases in which the temperature begins to rise as early as the sixth day, and runs up to 103 degrees F. or more, are not necessarily caused by a mixed infection, as Baum and others hold, but are due to the gonococcus alone. The diagnosis is based on the rather late onset, the slow regular pulse, the moderate and steady elevation of tempera-

ture, the profuse, purulent, glairy discharge, and above all, by the presence of the gonococcus in the lochia. The prophylaxis is of more benefit than treatment. All pregnant women having gonorrhea should be delivered without internal examination. Treatment should be limited to one or two intra-uterine douches, frequent vaginal irrigations and rest in bed for a prolonged period of time.

THE TREATMENT OF THE PERITONEUM IN DIFFUSE PERITONITIS.

Joseph A. Blake (Annals of Surgery) opens his contribution to this interesting subject with a clinical classification, and refers to the superiority, from the standpoint of therapy, of such a division over one based on the specific nature of the bacterial invasion. (It will not do, in passing, to insist too strongly on this superiority. Gonorrheal peritonitis, for example, is a different disease from streptococcal peritonitis, and both treatment and prognosis are influenced here as much by the nature of the organism as by the extent of involvement.) Peritonitis cases are, then divided into: 1. Those with abscess, the pus being localized by adhesions; 2. Those with spreading peritonitis, in which there is no limitation by adhesions or gravitation, but in which the limits are ascertainable; 3. Cases of general peritonitis in which no portion (except possibly the lesser sac) is uninvolvement. It is his operative results on patients, with the conditions classified in this way, that Dr. Blake here reports. The treatment adopted has aimed at two things—first, prompt removal of the cause to prevent further peritoneal and systemic infection, and second, placing the peritoneum under the best possible conditions to withstand and eliminate the general infection. The first principle means practically early operation, and Dr. Blake makes the very sane remark that a spreading peritonitis from an appendix differs in no way from a peritonitis from any other cause, and can not possibly be arrested or localized by any form of treatment other than operation. This brings the author to the threadbare appendix question, but he treats it concisely and sagely. "The advocates of the treatment by rest," he says, "will concede that the patient would be much better off with the appendix out if that could be done without operation. With a short anesthesia and quick operation the dangers of interference is much less than that of procrastination. The proper time for the rest treatment is when the appendix is out and the peritoneum cleansed."

Dr. Blake has treated the peritoneum in these cases by cleansing with large quantities of salt solution poured in, and either left in or mopped out with sponges. As to drainage, the author, at first an advocate of abundant

drainage, has come now to employ it (in cases where the focal cause or origin can be removed or eliminated) only when the presence of hemorrhage or necrotic tissue demanded it. The occurrence of post-operative obstruction, the shortening of convalescence, and the impossibility of draining every portion of the cavity are Dr. Blake's reasons for omitting drainage. He also finds that the duration of septic absorption—as indicated by the continuance of a supernormal temperature—is markedly less in undrained than in drained cases. In patients with general peritonitis, when the origin can not be removed or eliminated (as, for instance, those resulting from rupture of abscesses or from pancreatitis), Dr. Blake thinks drainage, as rule, necessary.

ON THE ADMINISTRATION OF ANTI-STREPTOCOCCIC SERUM.

The injection of antistreptococcic serum in cases of pure streptococcal infection has, according to T. W. Walker (Lancet), been followed by strikingly beneficial results: That variability in the results of the serum in proved streptococcal infection has been due to the selective activity displayed by the antitoxin of each variety of streptococcus or to the serum being used too late in the case or having lost its activity from staleness; that more uniform results are likely to be obtained from the present "compound" antistreptococcic serum than from the earlier forms, from the prompt injection of serum at the commencement instead of near the close of a severe infection, and from the use only of serum which has been recently prepared; that the initial dose may with benefit be increased, and that a large quantity spread over several days causes no ill effect; that the administration of the serum should be continued for some days after the general symptoms have disappeared, and a recrudescence thus avoided.

A STUDY OF THE MESENTERIC GLANDS IN THEIR RELATIONS TO TUBERCULOSIS.

Rosenberger (American Journal of Medical Sciences) investigated the mesenteric glands in seventy cases. Of these, forty-nine were tuberculous and twenty-one non-tuberculous.

These glands were normal in seven, enlarged in twenty-two, and tuberculous in twenty of the forty-nine cases in the tuberculous group. Of the twenty-five cases in which there were both pulmonary and intestinal lesions, 60 per cent. of the glands were tuberculous; of the eighteen cases in which there were pulmonary but no intestinal lesions, about 28 per cent. of the glands were tuberculous.

In the non-tuberculous group, including twenty-one cases, it was impossible to dem-

onstrate any gross lesions. These died from a variety of causes, among which were typhoid fever, dysentery, and other diseases liable to cause enlargement of the mesenteric glands. The examination for tubercle bacilli gave negative results in all of these cases. However, guinea pigs were inoculated with bouillon in which glands from each case were macerated. Six of the pigs showed distinct tuberculous lesions. In other words, in 40 per cent. of the cases the mesenteric glands of the non-tuberculous group were shown to contain matter capable of producing tuberculous lesions in guinea pigs.

The author concludes that in all cases of active tuberculosis and in almost all cases of inactive tuberculosis, the mesenteric glands are tuberculously infective; that the mesenteric glands in these cases may or may not show gross evidence of tuberculosis or tubercle bacilli in spreads, the result is the same as far as the qualitative production of tuberculosis is concerned; that the mesenteric glands, in a certain percentage of cases showing no tuberculous lesions in any part of the body, are tuberculously infective. In the present study the percentage was about 40; that the tuberculous infectivity of the mesenteric glands is probably shared by the other groups of lymph nodes throughout the body.

THE BACILLUS DYSENTERIAE IN ASYLUM DYSENTERY.

Eyre (British Medical Journal) contributes an article of both interest and value in its bacteriological investigations of an epidemic of dysentery in one of the London country asylums. After giving briefly the clinical history of the epidemic, in which 24 cases were met with, he discusses at some length his method of examining the feces. As a bacteriological medium he made use of an especially modified "lakmus-lactose-nutrose agar," this medium being originally recommended by Drigalski and Conrad.

Bacteriological examination of the feces was made in all cases, while the bacteriological examination of the blood and of the bile was also made in all the cases that succumbed—six in all. From 6 of the 18 cases of bacillus dysentery was isolated, and this bacillus was strictly comparable to Shiga's bacillus obtained from Berlin and Philadelphia; further it was agglutinated at once in dilution of 1 to 200 by the antidysenteric serum (Shiga).

The conclusions at which Eyre arrives are as follows:

1. That a bacillus identical with the bacillus dysenteriae, described by Shiga as the specific cause of acute dysentery in Japan, can be isolated from the stools of many cases of asylum dysentery.

2. That the blood serum of some of these cases of asylum dysentery possesses a specific agglutinative action when tested against ba-

cillus dysenteriae isolated from the stools of other similar cases, and also against other strains of bacillus dysenteriae isolated from cases of dysentery in tropical countries.

3. That in order to detect the presence of bacillus dysenteriae the stools must be examined when fresh.

4. That post-mortem material must be collected and examined as soon after death as possible, as after a few hours' delay, even in quite acute cases, bacillus coli becomes the predominant microorganism in the intestinal canal.

5. That under these conditions (3 and 4) the isolation of bacillus dysenteriae from the stools of patients suffering from acute asylum dysentery is comparatively easy by the methods indicated—when these stools are typically dysenteric to the naked eye.

6. That in case of chronic asylum dysentery, bacillus dysenteriae, if present, is so outnumbered by bacillus coli and other intestinal saprophytes as to render its isolation a matter of extreme difficulty.

THE DIAGNOSTIC VALUE OF TUBERCULIN IN ORTHOPEDIC SURGERY.

W. S. Baer and H. W. Kennard (Johns Hopkins Hospital Bulletin) say that tuberculin is the best and most reliable diagnostic agent for incipient tuberculosis of bones and joints. Its proper administration is attended by no permanent harmful effects. The dosage is variable and it is rarely necessary to exceed a dose of six milligrammes. The local signs are of equal if not greater importance than the general reaction in bone and joint tuberculosis. Tuberculosis practically always reacts to tuberculin. Diseases other than tuberculosis may possibly react to tuberculin, but the evidence on this point is not conclusive. The diagnosis of tuberculosis can be made earlier and with more certainty by means of tuberculin than by radiography. The tuberculin test is applicable to private and dispensary as well as to hospital practice.

SURGICAL HINTS.

The International Journal of Surgery contains the following surgical hints:

When observing a case with doubtful symptoms of mastoid disease withhold morphine, if possible, for its administration masks a very important indication—pain.

In connection with an irritating vaginal discharge, pus formation in the urethral follicles is extremely suspicious of gonorrhea, even though it fails to show the presence of gonococci.

Gunpowder not too deeply imbedded in the skin may be removed in many instances by the cautious use of the following ointment:

betanaphthol, 10; sulphur, 45; lard, 24; green soap, enough to make 100 parts.

Tenosynovitis, for example, of the forearm is easily recognized by the peculiar crepitus transmitted to the examining hand, when the patient moves the muscles. Tincture of iodine gives the most satisfaction in its treatment.

Tincture of iodine may also prove of great service when introduced on an applicator into an empyema sinus which, without the presence of continued pus formation and without osteomyelitis of a resected rib, still fails to close spontaneously.

Gonococci can not often be found in a vaginal discharge even when they are present. To secure a specimen in a suspected case take it from the cervix, or better yet, from the urethra. The vestibule is carefully sponged off clean. With a finger in the vagina the urethra is then compressed against the pubes. A drop of the pus thus squeezed from the urethral follicles is spread upon a cover-glass.

THE HYDROPHOBIA QUESTION.

Reynold Webb Wilcox (The Southern Clinic). Attention is called to this paper to show how widely different well established facts are interpreted in medical literature to suit certain personal idiosyncrasies. By a great array of observations and literature, Wilcox tries again to demonstrate that pathologic entity, called hydrophobia, does not exist, but is only the effluence of ignorance and superstitious belief. It is, of course, unnecessary to try to convince the author of his error, but papers like these serve to cause a false feeling of security, and may ultimately lead to dire consequences. This is the more to be emphasized for this paper, as it is written with a security of assertion and judgment about the results of scientific investigation so far obtained that may lead an uninformed reader to believe the author.

SUTURE OF THE HEART FOR HEMORRHAGE.

Giovanni Casapinta (Giornale Medico del Regio Esercito) gives us his opinion as to the value of cardiac suture in cases of wound of the heart, and the technique that should be observed. He calls our attention to the fact that the amount of hemorrhage is not an index of the severity of the wound. The obliquity of the wound, the formation of a coagulum in it, or of a parietal thrombus, assisted by syncope, the arrest of the instrument in the wound, proximity to a columna carnea, may prevent the emptying out of blood externally. No distinction should be made, in regard to operation, between penetrating and non-penetrating wounds; operation is demanded in all cases of wound of the heart. The first consideration should be the immedi-

ate arrest of hemorrhage, to prevent fatal anemia. The hemorrhage should be stopped at once by the use of forceps, and the author has constructed one with long blades at an angle with the handle, provided with teeth to grasp the heart muscle. General anesthesia should be used; as strict asepsis should be maintained as the necessary haste will permit. The trans-pleural route has the advantage of permitting the repair of the accompanying lesions, the lung generally being wounded also; and the opening should be large enough to permit of easy suture of the heart. When the wound is near the sternum it must not be enlarged toward the right, lest we get a fatal double-pneumo-thorax. Silk should be used for the sutures, since catgut is too soon absorbed. The heart action will remain irregular for some time after suture, and digitalin may then be given.

A STUDY OF CARDIAC DILATATION.

Selig (Wiener Klinische Wochenschrift) finds that those cases of dilatation of the heart which may be referred to as congestive dilatation (Stauungs dilatation), often possess relatively good functioning power. Many football players have albumin and casts in the urine after severe playing for an hour or two, and this the author considers the manifestation of beginning cardiac insufficiency. The best way to judge the state of the heart's action is from the general impression gained after severe physical exertion on the part of the patient, and not altogether from the pulse rate or changes in blood pressure.

INTERRUPTED CIRCULATION AS A THERAPEUTIC AGENT.

W. Ewart (Lancet). This is an ancient method, first described by Pere, and repeatedly rediscovered in the last 200 years. The central idea is compression of the veins and necessarily of the lymphatics, in this way increasing the local nutrition. This method was applied by Cushing in the treatment of Raynaud's disease, there being marked improvement in the local condition. He first produced an emptying of the part and then relieved the pressure, the capillaries being congested by the sudden influx of blood.

The technique of the method is simple. A padded armlet of soft leather, or falling this a circular pad of lint and cotton-wool, of sufficient thickness to protect the nerves is placed around the upper arm or thigh. India rubber tubing of suitable thickness is placed over the pad, and the two ends of the loop are put upon the stretch with one hand. The other hand grasps the tubes close to the front of the limb, thus tightening the loop into a

strong ligature. The degree of arterial occlusion depends on the strength with which the two ends of the loop are pulled upon. Previous to this the limb has been drained of its venous blood by elevating and stroking. The effect of the compression is to cause cutaneous blanching and numbness of the extremity. Usually a minute or two of this is sufficient. The tube is then loosened, and there at once follows a bright cutaneous flush of capillary injection and a pleasant feeling of warmth. The maneuver is repeated at intervals for five or six times. Two or more such sittings may be used daily. The method is so simple that it can be entrusted to a nurse. It has been used in the treatment of rheumatoid arthritis and other joint conditions. These cases of synovial effusion have been benefitted in larger degree than those with periarticular fibrosis. In the treatment of joint stiffness there is definite help in the numbness which accompanies the stage of ischemia, which allows with prudence an increased amount of passive motion to be applied.

PRIMARY CARCINOMA OF THE URETHRA IN WOMEN.

Hiram N. Vineberg states that this affection in women is very rare. Secondary involvement of the urethra by extension of the carcinomatous growth is not uncommon. This is pre-eminently a disease of middle and advanced life. The first symptom may be a burning sensation attending the act of voiding urine. Hemorrhage and discharge are very late symptoms. The conditions from which it must be differentiated are: Urethral caruncle, prolapse of a part of the urethral mucosa, and fibroid mucous polypi. The prognosis will depend upon the extent of the disease. As to treatment, total extirpation when feasible should be performed.

HYPERTROPHIC ACNE OF THE NOSE.

Clejat (La Medecine Moderne) was interested in this case. The patient was a man sixty-five years old, a smith by trade. Thirty years ago he noted the development of several points of pustulous acne on the lobule and the wings of the nose. The skin of the nose soon thickened, becoming irregular and knobby. At the end of fifteen years the nose was about the same size as it was when the patient presented himself for treatment. The nose was transformed into a bosselated mass. The lobule itself was as large as a nut. The skin looked like that of an orange, and was sprinkled with comedones and fatty cysts. The tumor was indolent and of soft consistence. By palpation the cartilages could not be felt. This may have been due to the fact that they were masked by the thickness of the tumor—

or, what is more probable, that they had undergone a diminution. On account of the thickness of the tumor, respiration was considerably impeded; this was especially noted on the left side and when the patient was lying down. Operation was undertaken. The thermocautery was first used, followed by dissection with the bistoury. Although the nose was greatly diminished in size, it remained full large enough, for it was impossible to take away any more tissue on account of the amplitude of the cavities.

VENTROSUSPENSION.

J. B. Killebrew (*Mob. Med. & Surg. Jour.*) advocates the round ligament ventrosuspension of the uterus as the most universally applicable and surest in its results. He reports an operation of this kind performed on a nullipara who became pregnant two months after the operation and was delivered normally at term. After delivery the uterus remained in its normal position.

SYPHILIS NODULARE HYPODERMIQUE.

J. Darier and Civatte (*Ann. de Derm. et de Syph.*): In the course of the manifestations of intense secondary syphilis, generally of a grave nature, there often occur subcutaneous nodules which are usually situated about the subcutaneous veins, the structure of the nodules being that of a syphiloid, and is a secondary benign thrombo-phlebitis. *Restitutio ad integrum* is obtained from mercurial treatment.

INFANTILE SCURVY.

J. L. Morse (*Jour. Amer. Med. Assn.*) records seven cases as showing that hematuria may be the earliest symptom of infantile scurvy, and therefore for a time the only symptom. Scurvy is the most common cause of uncomplicated hematuria in infancy.

SANITARY MEASURES TO BE ADOPTED AFTER FLOODS.

George A. Soper (*The Amer. Jour. of the Med. Sciences*) states that there is need of a strong sanitary organization with a responsible head, to avoid epidemic, by removing the conditions which favor the spread of infectious diseases and to watch for cases of such sicknesses in their beginning. There should be a set of sanitary regulations issued for the guidance of the people. The scene of the wreck may be divided into sections. The people should be taught to look after their own health. Whenever a case of infectious disease is discovered, the case should be isolated and the premises disinfected. The water

supply and food for the sufferers and helpers should be systematically inspected. In damaged houses slime, mould and silt should be removed. All household stuffs should be sundried. Cellars should be pumped out, ventilated and whitewashed. The most useful disinfectants will be quicklime, chloride of lime and carbolic acid. All decomposing and decomposable organic matters and condemned articles should be burned. Human remains should be buried deep—at least six feet below the surface. An appearance of order and neatness should be observed.

TREATMENT OF TUBERCULAR ASCITES.

Schomann (*Centralblatt f. Chir.*) for the last three years treated ascites by puncture and iodoform injections, using a large cannula to remove the fluid, and then injecting one to two cubic centimeters of a 1 per cent. glycerin-iodoform emulsion, which is gradually increased every four to eight days. Seven adult cases were cured in three to ten weeks, and two children were relieved after the second injection. He recommends this procedure in patients whose strength is insufficient to stand a laparotomy.

MALADY OF RECKLINGHAUSEN AND ARREST OF DEVELOPMENT OF THE BONES.

Hallopeau and Jeanselme (*Le Bulletin Medical*) have had two patients in whom besides the ordinary lesions of the disease of Recklinghausen, there was an absence of an important bony segment. In one of the fibula was lacking. The X-ray showed that only the epiphyses were present. The diaphyses were completely lacking. These cases show that an arrest of development is intimately connected with the disease of Recklinghausen, and they prove that this disease can affect all parts of the economy.

A CASE OF MALIGNANT ENDOCARDITIS WITH RECOVERY.

Charles F. Withington (*Medical Record*) reports the case of a man of 26 years who had had an attack of gonorrhea the month before he entered the hospital for sudden and severe pain in the cardiac region, and dyspnea. The temperature was from 102 to 105 degrees F.; pulse, 160 to 170. A thrill, pre-systolic in time, was felt below the nipple; gallop rhythm. A short systolic was heard in the fourth space to the left of the sternum. There were limited areas of consolidation in both lungs. There was marked phlebitis of the left leg throughout its whole extent. Blood was taken from the vein at the elbow and showed, in the culture, gonococci. Few

measles and whooping-cough on one hand and tuberculosis on the other.

Catarrhal lesions of mucous membranes are the paramount predisposing cause of tuberculosis in early life, and measles and whooping-cough are potent in this regard only through the catarrhs accompanying them.

About 50 per cent. of children dying of tuberculosis in childhood had neither measles nor whooping-cough.

While the infection of tuberculosis in childhood is mostly air-borne, primary infection of the abdomen is by no means a rarity.

A NEW METHOD OF TREATMENT OF ANKYLOSED ELBOW.

Schanz (Munch. med. Wochenschrift) performed the usual operation on the elbow, but to prevent a recurring ankylosis he placed between the freshly cut surfaces of the bone a flap of subcutaneous adipose tissue, suturing it in place. The joint was placed in a cast, which was removed in one month, and three weeks after removal of the cast the patient could move her arm freely, and three months after the operation could brush her hair, eat, etc. The thick flap prevented the growth of connective tissue adhesions, while its porous character permitted movement impossible with a denser tissue.

LEPROSY IN JAMAICA.

E. Graham Little, M. D. (Brit. Jour. Dermat.): In the leper home the treatment pursued is chiefly on hygienic and general principles. Subcutaneous injections of solution of soluble salts of mercury is favored. All cases are more or less improved by its use, especially the anesthetic type. Chalmers oil, both internally and by injection, is also used. The first process is very difficult to follow for any length of time, owing to the nausea and dyspepsia it causes. Injections promise better results.

PAGET'S BONE DISEASE CURED BY ANTISYPHILITIC TREATMENT.

Jacquet (La Presse Medicale) had this case under his care. The patient, when in full health at the age of fifty-three years, received a severe injury to his right tibia. The shock was so great that the patient lost consciousness. Nevertheless, there was neither wound or fracture. Several months later, however, acute pains developed in the right leg with a sensation of heat, soon followed by deformity and swelling of the region. Now, three years after the accident, there is a distinct deformity of the type of "saber scabbard." There was at once suggested the presence of a bony lesion of syph-

ilitic origin, and in spite of the absence of certain antecedents antisyphilitic treatment was instituted. The results were rapid and marked. Pain and functional impotence ceased. The writer believes that this was a case of Paget's bone disease due to a former traumatism; its syphilitic origin seems at least possible, after noting the rapid effect of specific treatment.

TRENDELENBURG POSTURE—NEW DANGER.

That vaginal secretion flowing through the cervical canal of an amputated uterus may cause fatal peritonitis is claimed by Lauenstein (Munchener medicinische Wochenschrift). He reports a case in which this occurred, and emphasizes the necessity of tamponing the vagina after washing it out, in all cases in which the uterus is likely to be touched.

RESECTION OF CARDIA OF STOMACH.

After describing the first case of hernia of the stomach through the diaphragm ever operated on, Heidenhain (Deutsche Zeitschrift für Chirurgie) describes an operation for anastomosis between the stomach and esophagus which differs from that performed by Sauerbruch.

Heidenhain operated on two dogs, as follows: After making a long incision in the middle line of the abdomen extending up to the sternum, he extended it upward and to the left by cutting through the lower ribs. He then drew down the esophagus into the abdomen as far as possible, clamped it, and cut it, stitching the end of the esophagus to the fundus and closing the stomach wound made by removal of the cardia. The diaphragm was then opened, and the stomach pushed upward until there was no tension on the esophagus, and fastened to the diaphragm by sutures. The diaphragm was then closed, and the abdomen also. Both cases had good union, although only one lived.

THE FUNCTION OF THE TIBIALIS ANTI-CUS MUSCLE AS REGARDS ITS RELATION TO THE PATHOGENESIS OF STATIC MECHANICAL FLATFOOT.

Raffaello Giani (Zeit f. Orth. Chir.) reports a case as follows: A boy who had his leg run over by a street car sustained a crushed wound extending over the anterior outer side of the leg, thereby stretching its middle third and injuring the muscles lying beneath. The child recovered, but on beginning to use the leg, it was noticed that there was a continually increasing tendency to equinus. Two years later an examination

revealed the fact that the belly of the tibialis anticus muscle had disappeared in the region of the wound. There was no reaction to the Faradic current. The author cites this case to show that damage to the muscle may lead to pure equinus. Reasoning from this conclusion, experiments were done on three hundred normal individuals of every age, the tibialis anticus muscle being stimulated by Faradic current. The results are tabulated, and show that the tibialis anticus may or may not have adducting power. The conclusion, therefore, is that this muscle, aside from its function of activity, has a passive function of maintaining the internal arch by holding up its vertex—namely, the internal cuneiform.

GENERAL THERAPEUTICS IN EYE DISEASES.

General therapeutics in eye diseases is discussed by A. M. Ramsey (Jour. A. M. A.), who points out the danger of a narrow specialism and the necessity of paying attention to the broad principles underlying all rational therapeutics, with especial regard to the eye. More than its proper value should not be assigned to local treatment. It is necessary to study the general principles of pathology before real progress can be made in ocular therapeutics. Local conditions can often be explained by a study of the general systemic condition. Improper feeding with defective metabolism is often, for instance, the cause of phlyctenulae. The importance of rest as an aid to nutrition is emphasized.

COEXISTING UTERINE AND OVARIAN FIBROMYOMATA.

F. E. Taylor (Edinburgh Medical Journal) points out that ovarian coexisting with uterine fibromyomata of the same kind are generally small. Occasionally one may in such cases meet with a large tumor, and there is then a great tendency to torsion of the pedicle.

COLD WEATHER COLDS.

Colds are common in cold weather because more impure air is breathed at that time and because the skin is kept tender with overclothing. People who live close to nature are exempt, declares N. James (N. Y. Medical News). As far as the atmosphere is concerned, a healthy person thrives about as well in the city as in the country. The indoor air, however, is foul and the percentage of moisture is below normal, causing too rapid evaporation from the body, with dilation of the vessels. The daily cold bath, ribbed or meshed cotton, linen or ramie, not

woolen underwear, and plenty of ventilation are advised with light weight bed covering and the abolition of steam radiators. (We should suggest that the bed clothing be always of sufficient warmth to obviate chilling of the body; and that hot bottles be put to the feet in severe temperatures.)

ETIOLOGY AND TREATMENT OF RETRODEVIATIONS OF THE UTERUS.

C. A. Robertson (Amer. Medicine) says that the chief single cause of retrodeviation of the uterus is rupture of the perineum involving the levator ani muscle and its fascia, together with a heavy uterus. The most important prophylactic measure in forestalling this condition is the proper care of the parturient and puerperal woman. The indication to be fulfilled by surgical treatment is to replace the uterus to as near its normal state of anteversion as possible and fix it there with a minimum amount of subsequent physiologic disturbance. No operative procedure designed to cure retrodeviations of the uterus is complete without the proper application of the principles of plastic surgery to the restoration of the function of the pelvic floor. There is perhaps no department of surgery which requires more skill and judgment in the diagnosis and selection of cases for a particular operation than the one under consideration.

THE GERM-CELL THEORY OF CANCER.

Albert S. Grunbaum (British Medical Journal) refers first to the morphological continuity of the germ-cells, which he explains briefly as follows: After the union of the sperm and the egg, there is formed by the subdivision of the united cell what corresponds to a larva, or trophoblast; in man the chorion. From one of its cells there is formed, as it were, a number of spores. One of these spores ultimately becomes the embryo, which includes within itself the remaining spores to become its sexual cells, which are thus not formed from the embryo, but are handed down to it, and for which it merely forms a home. It has been suggested that the aberrant germ-cell might be the origin of a cancerous growth. As to the connection between the germ-cell and a malignant growth, it has been found that there is in malignant tumors a form of nuclear division which normally occurs only in the sexual cells, amongst the spermatozoa and ova. One of the distinguishing characteristics of this heterotype mitosis is the formation by the dividing cells of only half the normal number of chromosomes. The other characteristics were also observed in the cells of malignant growths. These discoveries show

that there must be something in common between the germ-cell and the tumor-cell. This form of nuclear division has not been found in innocent tumors. The writer believes that the distinction between innocent and malignant tumors is not fundamental. The hetero-type mitosis does not occur at once in the evolution of the sexual cells. It may not occur at first in tumors, and in this stage they are not malignant, but when this supervenes, they become malignant. The writer declares that, given the cell or cells of the potential growth, it seems not improbable that the toxin of a parasite, the short stimulus of a trauma, the long-continued stimulus of chronic irritation, or the chemical conditions of disordered metabolism, might be sufficient to call forth their energies into activity, and thus one or all of the alleged causes in turn might have their share.

THE ABUSE OF PURGATION BEFORE AND AFTER OPERATION.

I. S. Stone (American Medicine) says that excessive purgation should be restricted because it is enervating to the general system. It produces great irritation of the mucous lining of the bowel. It may add to some of the dangers we are most anxious to avoid—ileus and paresis. Purgatives have very little effect in limiting the amount of extraperitoneal exudate and fluids. Instead of calomel and saline purgation, bland evacuant such as castor oil should be used before abdominal section. The use of suitable bland non-fermentative foods is desirable until just before operation in weak patients. After operation limit peristalsis; give only small quantities of food and drink by mouth; rarely give opium. Enemas should be administered to relieve distention and cause peristalsis in downward direction. After normal peristalsis laxatives should be given as required.

EARLY BACTERIOSCOPIC DIAGNOSIS OF PULMONARY TUBERCULOSIS.

Blume (Hospitalstid, Deutsch, med. Wochenschr.), in several cases of pulmonary tuberculosis, with slight or absent physical signs, and in which both cough and sputum were lacking, was able to demonstrate the presence of tubercle bacilli in fragments of mucus obtained by swabbing out the apparently healthy larynx.

SYPHILIS OF THE PYLORUS.

Cimoroni (La Riforma Medica) reports six cases of syphilitic ulcer of the pylorus, which had produced stenosis. The symptoms pain, hyperchlorhydria, and vomiting of food in such cases, which would ordinarily indicate a peptic ulcer, in syphilitic subject should lead the physician to look out for a syphilitic lesion of the pylorus. The ulcer may affect the entire mucous mem-

brane, while the muscular tunic is invaded by sclerogummatous tissue, which has an effect quite opposite to cicatrization, or may produce stenosis of the organ. There may coexist with this multiple intestinal stenoses of syphilitic origin. From a diagnostic point of view it is well to note that the symptoms of peptic ulcer, manifesting themselves in an old case of syphilis, should lead us to suspect pyloric stenosis. In such cases antisyphilitic treatment may bring about a cure and at the same time elucidate the diagnosis.

MEDICAL GLEANINGS.

Albuminuria from chronic nephritis causes risk in using mercury when in that of heart disease it is safe.

Ringer says that in biliousness if the stools are dark, podophyllin is the best remedy, but if the stools are light, calomel should be given.

An amputation for malignant ulceration should not be performed until the possibility of its being merely a broken-down gumma has been satisfactorily excluded.

A writer says that echinacea given in small-pox lessens the aching and shortens febrile period, and beyond question robs the stage of pustulation of its frightful consequences.

Strychnine given for a time appears to cause a sudden increase in reflex irritability, by stopping its own elimination.

Hair-cap moss (Polytrichum) it is claimed is of benefit in ascites or anasarca. It largely increases the urinary secretion and reduces the weight of the body within a few days.

Equal parts of the fluid extract of belladonna and nuxvomica, given in from two to five drop doses, for children from seven to twelve years of age, thrice daily, is most excellent for enuresis in children.

Hemorrhage from nearly any cause, if capillary, is best treated with calcium hypophosphite, ten grains every two to four hours, after all possible is done by mechanical means.

In the early months of pregnancy examinations should be made to determine that there is no retroversion or to treat it if it exists. A retroverted gravid uterus impacted in the curve of the sacrum always aborts.

In the presence of anemia or of faintness, without other apparent cause, inquire concerning the passage of black stools. The condition may result from hemorrhages due to an ulcer or neoplasm of the small intestine.

Crataegus (hawthorn) is recommended for the relief of heart disease. The dose is five drops of a preparation, probably the nature of a strong tincture, every four hours. The

symptoms calling for crategus are, among others, extreme dyspnea on the least exertion, dry cough with expectoration of glairy mucus, pain in the region of the heart, disturbances of the pulse-rate, nervous dyspepsia.

Tubercular nasal ulcers are usually on the septum, are whitish-gray and shallow, bleeding readily. They are accompanied by infiltrated elevations. Tubercle bacilli can be found in the scrapings. For these, as well as for lupous ulcers extending from the exterior, Levy advises curetting and the application of concentrated lactic acid.

In cardiac asthma Osler advises comfortable bed rest; tapping for hydrothorax; morphine for nocturnal dyspnea with restlessness; nitroglycerine in increasing doses in mitral valvular disease without dropsy and with high pulse tension. A. H. Smith gives fluid extract of *quebracho*, m. xx-xi t.i.d. In mitral insufficiency von Basch emphasizes the utility of light exercise adapted to the individual case; suitable diet; regular secretions and excretions; digitalis and atropine. For the dyspnea of mitral stenosis Thompson recommends belladonna with compound spirit of ether.

The Evans Vacuum Cap Co., of St. Louis, Mo., have so much confidence in the merits of the Evans Vacuum Cap as a means of restoring growth to hair as well as a cure for baldness, that the appliance is furnished on trial under guarantee issued by The Jefferson Bank, of St. Louis. An advertisement will be found on another page of this journal.

"The Essentials of Materia Medica and Therapeutics," by Alfred Baring Garrod, M. D., F. R. S., Professor of Materia Medica and Therapeutics at Kings College, London. Revised and Edited by Robert C. Kenner, A. M., M. D. Page 41—refers to *calicola* as a remedy which exerts a positively beneficial effect on patients in all stages of the tuberculous process. The remedy is free from morphine or opiates, chloral or any narcotic whatever. It speedily overcomes the cough of these unhappy patients and sputum will show changes in a few days. The patient on *calicolo* will not only find relief of symptoms, but the morbid process in the lungs is materially hindered and the most happy results follow the employment of the remedy if it is employed long enough to exert its influence.

The fermentation and gaseous distension of the stomach, which is so distressing, has not persisted in any case longer than three days after *calicolo* has been begun. There is no discomfort or disagreeable features attendant upon the employment of *calicolo*.

But the chills, hectic fever and profuse expectoration and other distressing symptoms of the disease are quickly relegated. The diarrhea or constipation will be corrected shortly after *calicolo* has been used. It acts

as a corrective of the intestinal tract, and in this way fulfills the positive action of the remedy in the tuberculous process.

Calicolo improves the circulation and nutrition of consumptives, and the good cheer and the comfort which the treatment exerts from its very inception is well calculated to inspire confidence in the bosom of the patient and his friends.

The treatment has a well-balanced action. By this we mean that it benefits the patient in every way. It enables him to eat and digest his food and to sleep. This, in the very nature of things, makes the treatment one which can, with correctness, be determined a positive one. Prof. Osler says that the improvement of the patient's nutrition is the key to the cure of consumption. If this is done, the lung disease may be left alone. It can be safely left alone, because the disease can not flourish where the general system is in such a high state of nutrition.

Calicolo effects all those results which tend to enable the system to throw off the disease. It builds up and regulates the economy. *Calicolo* effects the most happy results in patients in all stages of the disease. The presence of a cavity in the lungs, or the fact that the patient has been a sufferer for a considerable period, is no reason why we may not expect to attain good results with *calicolo*.

Calicolo is beyond question a great treatment, and every physician who has not given it a trial should lose no time in taking up the investigation of the subject.

Dr. Cooke Adams, of London, England, Author of the mulyptol treatment for cancer and consumption is on a visit to this country and Canada. The doctor's research upon cancer in Australia and a specific treatment for the prevention and arrest of the disease was published in *The Lancet*, London, 13th and 20th of February, 1904, arousing considerable attention in the medical world.

Dr. Cooke Adams reported the successful arrest of the disease in 55 cases of cancer of the breast and uterus. Since this date the specific effect of the mulyptol treatment has been confirmed by members of the medical profession in England and in this country.

On the 1st of November, Dr. Adams made a further contribution upon cancer when he read a paper before the Chicago Medical Society, entitled, "Some remarks on cancer, with notes on further successful cases arrested by the mulyptol treatment." Three of these cases were treated by other members of the profession and it is interesting to note that one of them, a case of cancer of the uterus, was successfully treated by Dr. Chas. A. S. Sims, of Kansas City, Mo., after six months treatment.

On Saturday, the 18th of November, Dr. Cooke Adams paid a visit to the Clinic of

Dr. J. B. Murphy (Prof. of Surgery) Chicago, and at the invitation of Dr. Murphy addressed the Clinic upon the mulypytol treatment in cancer.

The doctor is engaged upon a research on the therapeutical value of the vegetable oils of Canada and America in comparison with those of Australia. At the same time he is

pursuing his investigations upon cancer in these countries. Mulypytol was the result of many years research upon the eucalypts of Australia.

Battle & Co. have just issued the 8th of a series of twelve illustrations of the intestinal parasites and will send them free to physicians on application.

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ORIGINAL.

SOME PECULIARITIES OF THE ASTHMATIC'S BLOOD.

By Dr. Geo. N. Jack, Buffalo, N. Y.

In attempting to describe some of the peculiarities of the asthmatic's blood, it will be necessary first to briefly review my attitude on the subject.

In the first place I have maintained, alone for many years, but now with many staunch supporters, that asthma is a digestive, blood, metabolic disease and not a nerve spasmodic reflex one, as heretofore maintained.

These demonstrations have rendered an entirely new phase to the disease and developed for asthma an interesting and distinct etiology, pathology and therapeutics. From previous investigations than I have quite satisfactorily demonstrated to others and very satisfactorily demonstrated to myself, both clinically and scientifically, the following definition:

Asthma is a disease by itself, having a well established entity, but its dyspnea is only a symptom, a part of a vicious circle, or an abnormal biochemical and complex pathological process, originating usually in the intestinal canal, through a long standing intestinal indigestion and toxemia, with faulty absorption and metabolism, producing a toxic or lymphogenous chyle that generates an unstable blood, characterized by its extremely varied, numerous and alarming paroxysmal, morphologic changes, often alternating between a lymphocytosis, an intestinal toxemic leukocytosis, or an anematosis; accompanied anatomically by a hyperplasia of the lymphatic and glandular structures and clinically by a most wretched and agonizing dyspnea.

This definition makes it plain that the one characteristic pathological feature of asthma is the unstableness of the blood.

During long periods of quiescence the blood of the asthmatic usually presents no demonstrable pathognomonic constituents, but repeated blood analysis during attacks most

vividly picture its unstableness. During some attacks the blood will present quite constant pathologic changes, indicating throughout the attacks a decided lymphocytosis, and intestinal toxemic leukocytosis or an anematosis, but most frequently we find the blood rapidly oscillating between these three varieties, and occasionally there will be a blending of two of the three abnormalities or of the entire group.

The peculiarities of the asthmatic's blood might be classed as macroscopic and microscopic or as general and special.

It is not claimed that one could puncture the ear of an asthmatic and by putting a drop of his blood under the microscope demonstrate some pathognomonic lesion by which he could positively determine that the subject did or did not have asthma. It however is claimed that the demonstrable feature of the blood of the asthmatic together with the clinical behavior of asthma especially as regards its relation to diet, environments, and its response to drugs, form a chain of evidence that enables us to positively pronounce asthma a blood disease.

There are no structural changes in the blood or tissue of the asthmatic, barring the enlarged glands in the air tubes and in some cases the emphysematous changes.

Asthma is a functional disease with a functional pathology—an autointoxication and perverted metabolism with its resultant blood changes. There is no foreign substance in the blood of the asthmatic. To briefly follow a case of the lymphocytic or leucocytic variety through an attack we generally find the following characteristic blood changes: During an average interval between attacks accompanied by a period of moderately good health, a blood analysis can detect no pathological feature. Weeks before the attack something goes wrong with the digestion and metabolism. The stools become foul and cadaveric, the abdomen distended with gas, the tongue coated and other evidences of an autointoxication.

The blood now begins to be affected, the kidney, the ever-watchful guardian of the blood, is the first organ to detect these functionally pathologic blood changes and it en-

deavors to correct matters by filtering off a large amount of pale urine. Water bags settle under the eyes and the fingers, smell furnishing evidences of a lymphatic stagnation. About two days before the attack, the patient usually has a pronounced chill or shudder which is not followed by any febrile reaction. After the chill the blood and urinary analyses show distinct and characteristic evidences of a destructive metamorphosis and a physiologic disintegration.

The urine at this stage usually becomes dark, is of a high specific gravity and contains indican and an excess of uric acid and other catabolic production, the uric acid originating from the disintegration of the white blood corpuscle, the lymphocytic or the leucocytic as the case may be; the indican coming from the intestinal putrefaction.

On puncturing the ear after the chill or shudder or if no chill from two to three days before the attack the macroscopic appearance of the blood is quite characteristic. It generally flows freely, forming large, dark or almost black drops, which coagulate slowly, forming a large amount of serum or lymph. It appears to be rich in hemoglobin, owing probably to the destruction of the red cells, which leave the hemoglobin in solution but useless. The manner in which the drop spreads on the cover glass and slide denotes a deficiency of fibrin. It spreads out more rapidly and makes a much thinner specimen than ordinary blood.

I have now under my observation a case of asthma that most beautifully illustrates the unstableness and the rapidly disintegrating feature of the blood of the asthmatic.

The patient is a large, red-faced woman, weighing two hundred and fourteen pounds. She has had asthma in its worst form since childhood, and she states that she has for ten years at a stretch gone without sleeping one whole night in bed. When I first saw her last October she was suffering from a most severe attack of asthma. She could not breathe at all in the recumbent position and had spent several nights before in her chair. She could articulate in monosyllables only and that with the greatest difficulty. Her lips and finger nails were cyanosed. She and her family admitted to me of fearing impending death, which I confessed there were just reasons for holding the same. The chest and larynx were musical with numerous dry and high pitched sibilant rales. On puncturing the ear, the blood flowed freely in large, black drops; the first drops were so large that they could not be utilized for microscopic work. When on the slide the drop of blood did not adhere to it readily as normal blood would. It rolled about freely when the glass was tilted from side to side, and coagulated very slowly,

showing an excessive amount of serum. By the Tallquist test the blood was much darker than the one hundred per cent. scale. Under the microscope the rouleau formation of the red corpuscle is found to be imperfect. By pressing the cover glass down so as to make a thinner specimen the leucocytes and eosinophiles are observed to be greatly increased in numbers. On a differential count a leucocyte of twenty-five thousand three hundred was revealed eighteen per cent. of which were eosinophilic. Indophilia was present in a marked degree, nearly all of the polynuclear leucocytes giving the characteristic intracellular brownish coloration. A dark almost black blood that flows freely in large drops and coagulates slowly together with a leucocytosis, eosinophilia and indophilia are pretty constant features in the blood of the toxic leucocytic asthmatic just before and during an attack. Before the attack, then we have the disintegrating blood of the asthmatic loaded with a waste and useless material that must be gotten rid of by one or all of its three chief dumping grounds, namely, the kidney and mucous membranes and glands of the gastro-intestinal tract and the air tubes. This blood dumping process will naturally take place along the line of least resistance which in the asthmatic constitutes the mucous tissue of the air tubes. (The subject of this paper and space will not permit discussing further the pathology of asthma, but those interested in this subject are respectfully referred to my former papers, one of which was published in the New York State Journal of Medicine, May, 1902.)

In a comparatively short time from one to two days after the blood disintegrating process is clinically detectable or after the chill or shudder in cases that notice the same, the blood will have dumped enough of its waste material in the glands of the larynx and air tubes to cause the dyspnea.

As the process continues the mucous tissue of the larynx and air tubes become more and more congested which owing to the obstruction of the air tubes, together with the impaired oxygen absorbing process of the blood cause a dyspnea that threatens asphyxia.

After about twenty-four hours from the beginning of the severe dyspnea the glands of the larynx and later of the trachea and bronchi, undergo a resolution and degeneration with the expulsion of thick mucus, which is expectorated in lumps, the size of a pigeon's egg, and of a tough, tenacious, viscid consistency, which gives it an appearance of fat tissue and enables one to pick it up and handle it about with the fingers.

On inspection it is found to contain several little grayish, pearly balls which, on being

unraveled and viewed under the microscope, are found to be composed of delicate convoluted spirals (Curschmann's), made of numerous individual filaments. Other portions of the sputum under the microscope, without staining, are found to contain numerous leucocytes, exhibiting bright, yellowish, coarse granulations; among these are numerous colorless, pointed octahedral crystals (Charcot-Leyden's.) Disseminated throughout the field are numerous eosinophilic granules derived from ruptured eosinophilic cells:

These sputum analyses furnish another proof of the blood origin of asthma and demonstrate a peculiarity of the blood of the asthmatic, in that the mucus is found to contain the leucocytes, eosinophilic granules, and octahedral crystals, originating as they must from the disintegrated blood.

In addition to the above mentioned facts concerning the asthmatic's blood, there are in many asthmatics certain purpuric conditions often observed alternating with the dyspnea which serve to still further clinch the blood origin of asthma, among which may be mentioned eczema purpura, hemorrhagica purpura, scorbutica, extravasations of blood from the gums, and rheumatism.

The patient referred to in this paper furnished, about three weeks after the subsidence of her dyspnea a somewhat unusual but very striking demonstration of the purpuric nature of her blood. The lower lobes of the ears were so distended with the blood extravasations that they hung down like two blood tumors resembling much two purplish red leeches curled around the lower portion of the ears.

The patient informed me that these congested ear lobes throbbled and otherwise annoyed her. On puncturing the lobe for the usual blood analysis with an ordinary pointed needle the blood flowed freely in large drops; in fact scarcely forming drops at all. The free flow continued until it had saturated a piece of cotton the size of a hen's egg before small enough drops could be obtained for microscopic work.

When seen a week later, the patient's ears still presented about the same appearance, except quite a large area about the point of the puncture which had turned black and blue.

This paper is but a short consideration of a few of the numerous events that have demonstrated asthma to be a blood disease, and not a mere reflex one, as has been taught through all time past.

91 Niagara Street.

ABORT PNEUMONIA.

By John M. Shaller, M. D., Denver, Col.

While acute pneumonia is a disease dreaded by all because of its high death rate, this death rate can be lowered if the attempt is made to do so. Pneumonia, like all inflammatory diseases, must be preceded by congestion. Whether pneumonia is always caused by germs or by other causes does not matter. Start out with the idea that pneumonia during its first twenty-four or forty-eight hours is a congestion of some part of the lungs, and if properly handled, this congestion can be relieved.

The vast majority of cases of pneumonia is ushered in with a rigor which makes it easy to tell exactly when the disease started. If active measures are taken within twenty-four or forty-eight hours after rigor has set in, the chances are that the disease will not pass beyond its congestive stage. The difficulty with many physicians is, that they do not believe that pneumonia can be aborted.

There is no reason why pneumonic congestion can not be dissipated as well as any other kind of congestion. A congestion can not dissipate itself. Active measures must be taken to do so. If a trial is made, and the proper remedies used, there is no doubt but that the death rate will be very materially reduced.

The method is simple and is entirely free from danger to the patient. This latter statement may not be believed when it is stated that aconitine, the amorphous alkaloid of aconite, is the medicine used. Unfortunately there prevails among many physicians the idea that aconitine is a virulent poison and should not be used. It is true that the medical profession has been led to believe this through the writings of prominent physicians, but to-day there are thousands of physicians who use aconitine in all acute febrile diseases, with the result that very few of these cases reach maturity.

If a case that has all the indications of becoming pneumonia is actively treated with aconitine, the probabilities are that within two days the pulse and the temperature will be reduced to normal. This is the experience of all who use this remedy. Those who have not made a trial of this remedy for this purpose, contend that aconitine has no effect in checking the pneumonia. Such an assertion is unfair, because the remedy has not been given a trial.

There is one thing to observe, and that is when aconitine is used in pneumonia, the pulse is usually reduced before the fever begins to decline. It seems to have the same effect that digitalis has. It certainly does not weaken the pulse, but rather has a tendency to strengthen and make it beat strong-

er, after the pulse is reduced and the fever begins to decline, but both may decline at the same time.

In relieving pulmonary congestion by means of aconitine, to the writer's knowledge there has never been any harm done, or any bad results of any kind, no depression or weakening of the heart. It is true that a case should be watched carefully, as every case should be. Temperature should be taken at least every one or two hours, and the dose of medicine regulated according to temperature. If the temperature begins to decline, the interval between the doses should be longer. If those who have charge of the patient have not sufficient judgment to use a thermometer, the doses can be lessened when prominent symptoms begin to abate. For instance, if the child is feverish and restless, is moaning, coughing, has great thirst, skin hot and dry, if the most prominent of these symptoms begin to abate, it would be a certain and clear indication that conditions were improving, and the remedy can then be gradually withdrawn.

MEDICAL ASPECTS IN OREGON.

By C. H. Newth, M. D., Philomath, Oregon.

The title of this paper, would perhaps indicate a broader scope than the contents will warrant, as I shall confine my remarks to the part of Oregon, lying west of the Cascade mountains; comprising what is generally called the "Willamette Valley."

The practice of medicine is in some respects different in the territory named than in the Eastern States; especially the country practice. In the summer time the climate is simply delightful, making every visit in the country a veritable pleasure trip. In the fall of the year, it is sometimes disagreeably dusty, and in the winter it is one continuous slop, slop, slop through the mud. The Willamette Valley proper is about ten to fifty miles wide and nearly two hundred miles long. I live just in the edge of the coast range of mountains, twelve miles from Mary's Peak, or, as the old Indian name is, Mount Chintimini. This is the highest point in the coast range for many miles, and is covered with snow until the middle of July, making a fine place for picnics. I am fifty miles from the coast, and as there is no other doctor between here and the coast, you can well see that I have long rides over the mountains. The rides in the winter I call my "Pleasure Exertions" (with apologies to Josiah Allen's Wife.)

On one occasion I remember, I started with a messenger to see a patient over in a mountain valley, twenty-five miles away. There was a steady downpour of rain and

very dark, we had open country for eight miles, then we came to the mountain and heavy timber; here also was the last house for ten miles. We borrowed a lantern here and after riding three miles our supply of oil gave out, and we were left in the inky darkness. After blundering along for half a mile we came to an old abandoned cabin and resolved to wait until morning. We had two matches only, but we used one to look at our surroundings, then after cutting some kindling wood from the bedstead, we started a fire in a cook stove without any top, and with the aid of the bedstead, shelves, etc., we managed to keep warm until morning, but we were well smoked. Our horses did fairly well under a large cedar tree.

There are lots of cultured, intelligent people back in the mountains on stock ranches, and of course, some, quite the reverse.

On one occasion I rode over a fearful road, forty-five miles to see a patient with pneumonia, rode from noon until eleven at night without supper, and after doing what I could for her it was midnight, and the old lady of the house asked: "Well which would you rather, lie down, or eat?" I said, I believe I would a little rather do a little of both, so in about an hour I had set before me some potatoes, half boiled, and some soggy biscuits. It is said that some of the settlers in the mountains have to go to the woods for firewood before they can get breakfast, then wait until the hens lay or they can shoot a deer or catch trout, before they can get breakfast. With patients so far away, I have to depend a great deal on the nurse, and I find some excellent nurses and cooks in that region, and some who know more of medicine than the doctor. An old lady once told me, when called to a case of convulsions, "Give a little of this, doctor, and she won't have any more fits." On inquiring what it was, I learned that it was the dried powdered "caul" from the nose of a new-born colt. Last winter I was called nearly fifty miles to a case of labor, was told that the woman had been in labor for three days, and was not expected to live until I got there. I rode through in the night and found a woman with procidentia of uterus, and an old midwife encouraging her "to bear down, I can feel the head." The woman was not pregnant, but had a rather bad attack of asthma causing her to cough until the womb was almost "borned." She was nearly fifty years' old, and had seen no flow for about nine months.

I encountered an extreme case of obstetrical knowledge a few years ago. The man said, "I have attended a number of cows, so I know what to do in simple cases, but my wife's time is not up for four months and the baby keeps trying to come. I pushed

it back twice and it would not stay, so I sent for you." Needless to say the youngster was too stubborn for me also, and had his own way at last and was "borned." This was not in Oregon however and perhaps should not have been included in these notes.

Summer complaint, and diseases caused by hot weather are almost unknown here, yet we have a few cases of gastro-enteritis and entero-colitis caused mostly by eating fruit on the verge of decay, especially prunes and grapes. Malaria is almost unknown in this neighborhood, but there are light cases along the river. Typhoid fever is not very common and generally occurs in a mild form. We have some pneumonia, and for a few years after the grippe was epidemic, it prevailed in a severe and fatal form, and seemed more or less contagious. Tuberculosis is more common here than in the upland prairie States, and is generally fatal except in some chronic cases. Rheumatism is not as common as might be supposed, considering the damp climate. Oregon seems to be an ideal climate for old people; one of the first remarks from an Eastern visitor is, about the large proportion of healthy looking, old people there is here. Oregon has rather more than her share of physicians, per capita, and also I think, of travelling quacks. One rather noted quack, reaped quite a harvest in this county a few years ago, who, on a test, found large quantities of human spermatozoa in some horse urine. Physicians' fees here are supposed to be two dollars per visit, and one dollar a mile, but I do not think this is very closely adhered to. The law requires a physician, before commencing to practice in this State, to pass an examination, regardless of diploma. I think this climate is conducive to quiet mental states; the quiet steady rain, or "Oregon Mist," is an antidote to insomnia. I see very little of hysteria, except in new-comers. The last case I saw took the form of catalepsy, and by the way, I must tell my remedy for this condition. I find it gives immediate results, and yet I have never seen it recommended in the books. When you find a patient, (I had almost said a young lady), in a state of catalepsy, you will generally find the abdomen rigid. Place your hand flat on one side of the abdomen, and make pressure, gradually increasing the steady pressure until you are bearing your whole weight on the abdomen; you will soon find that the muscles will jerk spasmodically to overcome your pressure, and soon with a groan or a sigh, the patient will turn on her side and either open her eyes and look at you or speak and relax all muscles.

On reading this paper, it seems to me that I have carried the impression that there is lots of ignorance, superstition and unthrifti-

ness here in Oregon, but I can assure you that if so, there is also an unusual degree of intelligence, culture, and refinement. The public schools are well supported, and there is a large number of denominational schools. There are two such in this town; both branches of the United Brethren have a college here. There are also a number of universities here, so that educational advantages are fully equal to Eastern States. The different churches are also well represented and supported. To show that we are not alone in having ignorance and superstition in our midst, I will recount a circumstance that happened in Kansas. On a certain Thursday, a man came to me and asked me to give him a love powder. He was seventy years old. I first laughed at him and told him there was no such thing. He said he was very much in love with a neighbor girl of some sixty summers and he could make no impression. I told him "Faint heart never won fair lady," and otherwise encouraged him, and he went away as I supposed, convinced that love powders could not help him. Two days afterwards, on Saturday, an old darkey came to me on the same errand, wanted some love powders. He was over ninety years old. I asked him what an old man like him could want with love powders. He said it was not for himself, but for a white man. The case so interested me that I finally told him that if he would tell me who it was for, I would give him the best I had. Under promise of secrecy, he told me, for, he said, he did not want to walk twenty miles to where he usually got them and he needed the dollar he was to get for them. I gave him two powders, one for the man to take and the other for him to get some way in the woman's coffee. Here is the prescription, and if the reader needs any, let him take note. Powder No. 1, sulphur, and cinnamon of each, just enough to see, but not to taste. Powder No. 2, milk sugar and sanguinaria, same quantities. I never saw either of the parties again, but the old man and his sweetheart were married on the next Tuesday.

REPORT OF GYNECOLOGICAL CASES.

By N. B. Delamater, M. D., Chicago, Ill.

Case (1.) Mrs. B., age 54. Has had complete prolapse of uterus for several years; menopause at fifty. Has had several children. Badly lacerated perineum. Cystocele and rectocele. Enlarged elongated and lacerated cervix; chronic endometritis.

Operation (1.) Cured and swabbed out uterus with tincture iodine.

(2.) Amputated cervix. (Hager's operation.)

(3.) Anterior colporrhaphy.

(4.) Perrineorrhaphy by Tait's flap splitting method.

(5.) Opened abdomen and did ventro-suspension as Kelley recommends by stitching the posterior part of fundus to anterior abdominal wall.

This woman was operated in July, 1901, and there is as yet no signs of recurrence of old trouble. Reason for reporting this case is that Garrigues says in his text-book on gynecology that he did this operation on a patient for prolapse of uterus and in one year the trouble was as bad as before the operation.

Case (2.) Mrs. W., aged fifty-six. Complete prolapse of uterus. No cystocele or rectocele. Double hernia, one femoral, one inguinal. Patient otherwise in good health.

Operation: Vaginal hysterectomy, ligated vessels and broad ligament with silk. Double herniotomy. Patient made good recovery from operations and is entirely cured.

Case (3.) Mrs. M., thirty-four years old; one child four years old; badly lacerated perineum, prolapse of uterus; cervix protrudes from vulva about one inch; cystocele and rectocele; anterior colporrhaphy, by removing an elliptical piece of vaginal wall extending from the cervix to near the external urinary meatus, and about one inch wide in the center and bringing the edges together with fine (No. 1) chronic cat gut, next did perineorrhaphy by Tait's method. It has only been a few months since this case was operated, so can not say whether results will be lasting as in case 1. As this woman is of child bearing age, I did not deem it advisable to do ventro-suspension as in Case 1.

Case (4.) Mrs. G., aged forty. Suffered with menorrhagia for about seven years. Had one physician all this time who never made an examination, only gave medicine to check bleeding. Between menstruations there would be no bleeding which is one point of differentiation of myofibroma from carcinoma of uterus. In the latter there is a bloody discharge between the menstrual periods as well as at the menstrual periods. At my first call on this patient, I made an examination, (vaginal), and found what I thought at first to be an inverted uterus, but by a more careful examination with one finger in the vagina, and the other hand on the abdomen just above the symphysis pubis I discovered the fundus of the uterus. By a more careful vaginal examination, by pushing the index finger up as high as possible, I discovered the widely dilated cervix which felt like a tight band around the neck of the tumor. The tumor was about the size of a new born baby's head. This tumor was removed by morcellation

soon after the diagnosis was made, and the woman has been in good health ever since, now eight years. No recurrence of either hemorrhage or tumor.

Case (5.) Mrs. R., aged forty-five years. Was troubled with menorrhagia for about two years; some pain at time of menstruation. No bloody discharge between menstruation which showed that there was no carcinoma. A bimanual examination showed tumor of uterus extending nearly to umbilicus with a uterine sound in the uterus showed the uterine canal very much elongated; abdominal hysterectomy showed an interstitial myofibroma. Woman made good recovery.

Case (6.) Mrs. B., aged thirty-four; two children, youngest six years old. Has had painful and profuse menstruation for two years. Was called to see her because she was suffering great pain in back and in pelvic region and was unable to void her urine. A bimanual examination revealed large uterus the size of four months pregnancy. Temperature 100, pulse 100. The cervix was not dilated. I sent the patient to the hospital and ordered hot fomentations over lower part of abdomen for the pain. She sometimes required hypodermic of morphine to be able to sleep. The temperature kept around 100; pain continued, and all this time there was a bloody discharge from the uterus; last few days there was a very profuse sero-sanguineous discharge with foul odor. A vaginal examination at this time revealed a dilated cervix and a myoma (infected) as large as a new born baby's head protruding.

Operation: By the use of a Thomas' spoon saw the pedicle, which extended from the fundus of the uterus to near the middle of the cervix, was cut off close to the uterus, keeping the convex surface of the spoon toward the uterus to avoid injuring the uterine wall. The uterus was swabbed out with tincture iodine and packed with iodoform gauze for twenty-four hours when the packing was removed. There was a very profuse discharge of sero-sanguineous fluid from the uterus for a few days; no hemorrhage at operation to speak of. The temperature kept up for about ten days, when it entirely disappeared, and the woman made a good recovery.

Case (7.) This case is interesting from a diagnostic standpoint. Miss C., age thirty-six. Had suffered with pain in back and pelvic region for two years and especially during menstruation. Menstruation not excessive during this time. Menstruated last in June this year, and did not menstruate again for nine weeks; then only three days and only a sero-sanguineous fluid. Ten days later commenced again and flowed profusely two weeks. At this time an exami-

ation revealed a symmetrical tumor, pear-shaped, extending nearly to the umbilicus. The shape of the uterus and the history of missing menstruation made the diagnosis not easy. Pregnancy of course was thought of, but before beginning the operation a sound was introduced into the uterine cavity and it was found not much elongated, probably three inches to fundus uteri, which absolutely excluded pregnancy that size in uterus. The woman weighed 200 pounds, which made the diagnosis more difficult. The operation showed it to be an interstitial fibroid which developed below the left horn of the uterus (see cut) and carried the left ovary and tube with it. A hysterectomy was performed, the uterus being amputated at the upper part of the cervix, and the stump stitched over with cat gut and abdomen closed without drainage. Good recovery.

Case (8.) A young married woman, twenty-four years of age, had missed one menstruation, and at time for second menstruation flowed rather profusely for about five days, when she was suddenly attacked with severe pain seemingly in the stomach and lower part of chest, which made her short of breath, and faint and a blanched skin was noted a few minutes later by the physician who was called. A diagnosis of ruptured tubal pregnancy was made. Patient kept in bed for ten days. At the end of ten days she was allowed to get up and was up and around for five days when she was taken with severe pain similar to first attack. I saw her this time twenty-four hours after the onset of this attack and found temperature 100, pulse 100; very tender over right ovary and tube. Dullness on percussion over lower part of abdomen. I found pus in urine and as patient complained of frequent and painful urination, I was about to change my diagnosis to acute salpingitis. The enlarged tube could not be felt until the patient was etherized, then it was easily made out about the size of an ovary, but could be easily differentiated from the ovary by its shape. Operation showed belly full of blood, mostly fluid, but some clotted and organized and attached to the omentum. The bleeding was freely going on so I reached down and by the aid of sensation alone clamped the ovarian artery and also the broad ligament and tube next to the uterus. From the examination before the operation I knew which side the blood came from. After the clamps were in place I removed the blood with sponges, and flushed out abdomen with normal salt solution; tied off and cut out the ruptured tube; closed abdomen without drainage. Woman made good recovery, and has had two children since.

Case (9.) Young widow, thirty-four years

old. Had all the the symptoms of a pelvic infection, such as pain in pelvic region, temperature above normal, pulse rate accelerated, with a history of what seemed to be a miscarriage. Had been sick two weeks with above history. A bimanual examination revealed a large mass back of uterus, very tender to the touch. Operation: The cervix was caught with vulsellum forceps and traction made downward and forward. The vaginal mucous membrane one inch below the cervix was caught with a rat-tooth forceps and with traction on this forcep also an opening was cut through the vaginal wall latterly about one inch long, midway between these two forceps. With one finger in the rectum as a guide, the index finger of the other hand was forced through the tissues against this mass. Now with the other hand (a finger cot having been used on the index finger introduced into the rectum was now removed by a nurse) a pair of long artery forceps was forced into the mass using the finger of other hand as guide, closed, they were then opened while in the mass and a large quantity of blood clots and sero-sanguineous fluid gushed out. This cavity was packed with gauze, using a strip about a yard long and three inches wide. This gauze was left in for eight days, a few inches being pulled out and cut off every day, and finally the last piece was removed on the eighth day. This patient was very sick and temperature kept up to about 102 and in about ten days from the first operation another mass was discovered a little further to the left. This was opened same as the first and the patient made a good recovery in about one month from time of first operation. This was a case of ruptured and infected tubal pregnancy without doubt.

ABSTRACTS AND SELECTIONS.

THE PROPHYLAXIS OF NEPHROLITHIASIS.

G. Klemperer (Therap. der Gegenwart): As the result of clinical and experimental research considers possible the prevention of nephrolithiasis when this tendency exists, by means of a proper diet, the alkaline mineral waters or their manufactured chemical substitutes. Concerning oxalate concretions the author states that when with a mixed diet there is given twice daily 2 gm. of magnesium sulphate these calculi are dissolved, while oxalate crystallization is prevented by the administration of 5 gm. of the sulphate four times a day in conjunction with a diet consisting largely of vegetables, milk or eggs. Phosphatic calculi are due, as a rule, to gastric hyperacidity due to influ-

ences arising in the central nervous system and their treatment follows the line of correction of this condition. Mineral waters are found most useful in the tendency to urate formations and in dissolving the same when already present. Cystin stones are due to a derangement of metabolism and their prophylaxis consists especially in a restriction of the dietary to exclude cystin, such as egg and plant albumin in preference to fibrin and serum albumin. Klemperer considers it necessary to continue these measures over a term of years and often during life to continually guard against a recurrence or renewal of activity of the tendency existing, and this is brought within the realm of possibility, since the treatment may be followed at home.

MAMMARY ABSCESS.

A. G. Caldwell, M. D. (Louisville Medical Monthly.)

One of the most troublesome complications of lactation is the formation of abscess in the breast; an occurrence we often meet, and which, if improperly treated, may by long continued suppuration and the formation of numerous sinuses in and about the breast produce very serious effects upon the general health, and even death by blood poisoning. The causes of breast abscesses are numerous, the most common being fissures or erosions of the nipples, hence those very common affections about the nipples should be promptly treated. The abscess may form in any part of the breast, or in the areolar tissue beneath it. Abscess is usually ushered in by a slight chill and general constitutional symptoms. These symptoms vary according to the severity of the inflammation. Fever is always present with rapid pulse and general malaise; rigors and sweats follow suppuration, and if not promptly treated at this stage it leads on to fistulous tracts which in time completely riddle the breast. The general health soon suffers to a marked degree and if it be left to suppurate for months the patient becomes reduced to profound and even dangerous debility.

Treatment.—In many cases it may be aborted by removing the engorgement of the lacteal vessels by hand friction and saline cathartics, and giving the affected parts complete rest. When the general symptoms indicate the formation of pus, cleanse the breast thoroughly with antiseptics, and make a free incision at the most dependent part, parallel with the lacteal ducts to avoid injury to them. Avoid the admission of air, press out all the pus, then irrigate thoroughly with Hydrozone (Marchand's) and boiled water, equal parts, un-

til foaming ceases; then inject the cavity thoroughly with a 5 per cent. solution of carbolic acid, and if well done it seldom has to be repeated in acute cases.

In chronic cases the same treatment suffices. When all sinuses and pus pockets are broken up so the Hydrozone can reach all parts, keep incision covered with antiseptic adhesive plaster and provide capillary drainage by inserting a strip of iodoform gauze. For the pain give opium, gentle salines for the bowels, and tonics for the general health. For high fever give large doses of quinine, and cactine to support the heart.

SIMPLE ULCER OF THE STOMACH AND ITS TREATMENT.

J. J. McGrath (Medical Record) reviews the subject of gastric ulcer and discusses the various operations possible for relief from the condition. The most satisfactory of these is usually gastroenterostomy, which is curative in its effects, and when properly performed by competent surgeons on patients not too greatly reduced through inanition and hemorrhage should be almost devoid of fatalities. It is to be hoped that the intractable and persistent cases of gastric ulcer will come into the hands of the surgeon while there is still good promise of cure without undue risk of a fatal issue.

A CASE OF CHOREA, FATAL APPARENTLY FROM EXCESSIVE MUSCULAR ACTION.

T. P. C. Griffith (American Medicine) refers to the fact that death from chorea is unusual, the Collective Investigation Committee of the British Medical Association finding only 9 deaths in 439 reported cases, and Sinkler finding but 64 occurring in Philadelphia during seventy-four years. In the great majority of cases the fatal issue depends upon some complication, especially endocarditis, and deaths depending directly upon exhaustion from enormous muscular action must be considered a rarity. He reports an instance of this occurring in a boy of eleven under his care at the Children's Hospital of Philadelphia. The child had had a previous attack of chorea two years before. The cause of the development of the present attack was not known. A month before he commenced to show restlessness, which advanced to chorea movements and grimaces. For a week the movements had been excessive. On admission to the hospital nothing could be found abnormal in the organs, except the presence of a systolic murmur in the mitral area. The boy could not speak, although he seemed to understand perfectly.

The movements were so excessive that the child was thrown violently about the bed, and was bruised all over. Sleep was almost absent. The condition was relieved to a certain extent by hyoscyne hydrobromate hypodermically given, and the administration of morphine, potassium bromide and chloral hydrate having been entirely ineffective. The excessive movements continued, and exhaustion and death finally ensued. The autopsy showed the presence of an endocarditis with micro-organisms in the heart muscle and in the mitral leaflets. While it can not be affirmed positively that death did not follow from endocarditis, yet the case bore all the evidences of death from exhaustion, the result of the enormous muscular activity.

NASAL TREATMENT OF ASTHMA.

Alexander Francis (Journal of the Royal Army Corps, London), has from his experience drawn the following conclusions: (1) That asthma is due to reflex spasm of the bronchial tubes. (2) That the irritation may originate in the nose, as may be inferred from (a) the intimate association between hay fever and asthma; (b) the very common record of excessive sneezing at some time in the previous history of an asthmatic patient; (c) the not infrequent alternation between asthma and sneezing. (3) That asthma is not directly due to any mechanical obstruction of the nasal passages and is not commonly caused by any gross nasal lesions. (4) That some part of the nasal apparatus has a controlling influence on the respiratory center; or there is in the nose, as it were, an agency through which the afferent impulses must pass.

ETHYL CHLORIDE AS A GENERAL ANESTHETIC.

A. B. Craig (American Medicine) says the use of ethyl chloride for purposes of general anesthesia has passed the experimental stage. The position of the drug, so far as danger is concerned, has not yet been definitely determined, though taking all available statistics into account it can be reasonably assumed that it is safer than chloroform, probably safer than ether. The future will no doubt accord it a place somewhere between ether and nitrous oxide gas.

Only the pure preparations of the drug should be used for general narcosis.

The best method of administration is some form of the "open" method—either the Ware mask or the ordinary gauze compress, the former requiring a smaller amount of the drug.

Its use is especially indicated in young subjects.

It is not suited for prolonged operations, and as it does not produce complete muscular relaxation it can not be especially recommended for the reduction of dislocations, and possibly of fractures, and for divisions of the anal sphincter.

It is indicated in the various brief surgical procedures occurring in dispensary service of general surgery; in short operative measures in gynecology; in a fairly wide field in obstetric practice; and in much of the operative work of the nose and throat specialist.

ALCOHOLISM IN SCANDINAVIA.

Our colleague, Dr. Legrain, confirms our views in his report of his impressions on the question of alcoholism, published in the Archives de Neurologie. He considers the system of government monopoly of drinking houses in Sweden and Norway and says that this system is not proof against alcoholism in these countries. The preventive measure he says, of selling not less than a quart bottle of any alcoholic drink, has proven a failure. The subject purchasing a bottle of liquor is not allowed to drink it in the shop. The consequence is that either the alcohol is consumed at the home of the individual and the whole family becomes intoxicated or else the individual intoxicates himself on the street far more than he would under ordinary circumstances. It is a common thing, therefore, to find on the streets individuals intoxicated to insensibility. Besides, there are many so-called eating houses in which food is presumably sold, but the main feature of which is a cupboard well stocked with alcoholic drinks, to which every "guest" has free access. If the "guest" is caught in the act by an officer of the law, the proprietor declares that his guest was "stealing." The proprietor can not be prosecuted because every citizen has the privilege of having his private supply of drinkables stolen. The monopoly in Russia has produced similar effects. Dr. Legrain says instead of drinking within the enclosure of four walls, the people are found drinking and drunk on the streets. Commenting on these conditions, Dr. Toulouse also says that the desired reform can be attained only through the reform of the individual himself.

THE MORPHOLOGY OF CARCINOMA AND THE PARASITIC THEORY.

J. Orth (Berliner klinische Wochenschrift), after a lengthy exposition of the theoretical grounds which make it unlikely that carcinoma is of parasitic origin, sums up the objections to the present status of this theory as follows: The essential feature of all cancers, primary and secondary, is the cancer cell; without the cancer cell, no cancer me-

tastases. In order to explain the occurrence of metastatic deposits it is not necessary to presuppose the existence of parasites, for cancer cells capable of proliferating suffice for this. It is not possible to establish an analogy between the metastases of malignant growths and those of suppurative processes, tuberculosis, etc., and the question of analogy can not be used as an argument in favor of the parasitic nature of carcinoma. The cases in which transplantation of cancer to another individual has succeeded can be explained without calling in the aid of the parasitic theory, through the assumption of direct transport, the cancer cells simply giving rise to metastases in another body. The various parasites that have so far been described are still entirely inadequate to form a basis for scientific speculation, or, in other words, the parasitic theory is still all in the air.

STONE IN THE KIDNEY.

A. Bethan Robinson (Brit. Med. Jour): A woman who had come from India, where stone is extremely common, had a calculus large enough to form a very definite abdominal tumor. The calculous material completely filled the pelvis and calices, and the extremely thinned cortex was simply riddled with gritty particles. The calculus weighed 42 grams, and consisted of a nucleus of lamina of oxalate of lime with a very thick coating of phosphates on the outside; the part in the pelvis had a well-marked extension into the mouth of the ureter.

The three most important symptoms pointing to renal calculus are: Pain, attacks of renal colic and hematuria. In a large proportion of cases all these symptoms are not present together, the only one being anything like constant is pain.

The use of X-rays as a means of diagnosis is of very doubtful value.

The best method of removing a renal calculus is through a lumbar incision, and, of course, behind the peritoneum.

A SOLUBLE BUTTON FOR INTESTINAL ANASTOMOSIS.

P. Patterson (The Lancet) has discovered this desirable medium in a combination of gelatine with chrome alum. Ten grains of chrome alum are dissolved in one ounce of cold water. Moulds are then prepared—lined with a layer of strong muslin and filled with a strong watery solution of gelatine. The fibrous mould-lining becomes saturated with the gelatine and incorporated with the outer portion of the gelatine button, giving additional strength, while diminishing the tendency to brittleness. When the gelatine has set, the casts are removed from

the moulds and placed in the alum solution (one button to each ounce of the solution) for twelve hours. They are then kept in 50 per cent. alcohol until required for use. A button three-quarters of an inch in diameter resists solution for about five to seven days when placed in the bowel. The buttons are used in the same general way as the Murphy button. Thick hydraulic dental cement may be used, if necessary, to firmly approximate the male and female halves.

THE TREATMENT OF SYPHILIS.

Jonathan Hutchinson (Practitioner) gives a brief outline of the treatment given his luetic patients during the first year of the disease. Medication should never be begun until the character of the initial sore has been definitely determined. A pill containing 1 grain each of gray powder and Dovers powder is then prescribed to be taken three times a day after eating and if within a few days no diarrhea ensues the dose is increased to four, five or six pills at separate intervals during the day. In debilitated subjects 1 grain of quinine is added to each pill. All fruits, green vegetables and soups are interdicted and an alum mouth wash to guard against pytalism. While the patient is allowed to continue his employment a large amount of rest in bed is advised and no intermission during the treatment during the first year is permitted. As a rule, Hutchinson states that the iodids are to be avoided during the early stages of syphilis, but when extensive ulceration is present, iodid of potassium may be given in solution in conjunction with the pill of gray powders which causes a better effect than is obtainable from the single administration of iodid of mercury. It is stated, however, that under a faithful performance of the treatment originally laid down manifestations of the disease in the throat or on the skin are extremely rare.

GOUT.

E. Schmoll (Journal of the American Medical Association) offers the following as his conception of gout: In gout the uric acid is produced not only by oxidation of purin bases, but by synthesis; this synthesized uric acid therefore has not at its disposal the thymic acid necessary for its solution in the blood. This is why we can detect uric acid in the serum. If the formation of the synthetic uric acid increases for any reason the serum becomes saturated, and as no thymic acid prevents its precipitation it is deposited as tophi in the joints. He explains some difficulties of this theory, and gives the results of his experiments with the thymic acid treatment. The excretion of uric acid

is constantly increased during the medication, attacks of gout cease to appear, the swelling goes down and in some cases entirely disappears. The dose is about one-quarter of a grain three or four times a day, and is given after meals to avoid gastric disturbance. Larger doses, three or four grains in twenty-four hours, may cause local inflammatory reaction. He does not claim to cure gout in this way, but simply to neutralize the primary metabolic disturbance revealing itself by the synthetic formation of the uric acid.

BENIGN VILLOUS TUMOR OF THE RENAL PELVIS HEMOTHORAX; NEPHRECTOMY; RECOVERY.

Drs. H. Savory and W. Gifford (Lancet): Previously forty-nine cases of villous tumor of the renal pelvis have been reported. The complete list of references are given.

A man, aged thirty-eight years, had attacks of what he called colic (1899-1903). In 1901 hematuria first noticed. Bleeding and pain were aggravated by exertion. During 1903 attacks of pain and hematuria became very frequent, after exertion, but no villous fragments could be discovered in the urine.

On November 8 an exploratory operation was performed upon the right kidney by the lumbar method. Kidney was much enlarged, measuring 9 to 10 inches from above downwards. Near its upper end a soft spot was found and when this accidentally opened masses of blood clots, both old and recent, exuded. Several handfuls of this were removed and some villous-like growth was found in it which suggested malignant disease. The kidney was removed, and can now be seen in the museum of the Royal College of Surgeons of England.

Microscopical section showed a simple villous papilloma.

A REVIEW OF 556 CASES OF APPENDICITIS.

Deaver (Pacific Med. Jour.) presents a series of 556 cases operated on consecutively during the past year, with a mortality of 5.3 per cent. According to the author the mortality in these cases is directly proportional to the extent of the extra-appendicular involvement, which is in turn due to the duration of the disease and the character of the infection. He divides the cases into three classes for consideration:

1. Those suffering from general or diffused peritonitis.
2. Those in which abscess was present.
3. Cases where the disease was confined to the appendix with stricture, ulceration and sometimes necrosis of the mucous membrane.

General peritonitis is a very fatal condition and in the 16 cases of this description there were 5 deaths, a mortality of 31 per cent. Of the second class there were 183 cases with 22 deaths, a mortality of 12 per cent.

In 6 of this class intestinal obstruction developed: 5 were operated on with 1 death, and 1 died without operation. In 163 cases it was necessary to open the peritoneal cavity in order to reach the abscess. In 20 cases merely an extraperitoneal incision was made; of these 3 died, a mortality of 15 per cent.

To trust to peritoneal absorption is akin to faith cure, in the treatment of intraperitoneal abscesses, and an aseptic scalpel accomplishes far better results. The treatment of appendicitis is operative, and the practice of waiting for the interval is perilous, not alone from the evil due to accumulating pus, but from the effect such teaching may have not only on the layman but on the medical man also. If immediate operation was universally practiced there would be no necessity to devise means to restrict the spread of infection. In the last class of cases, those in which the disease was limited to the appendix, there was a mortality of 0.8 per cent., 3 deaths in 367 cases. In 173 cases hitherto classified as chronic, there were no deaths. In 194 cases the appendix was swollen, edematous and inflamed, but not perforated, though there were firm adhesions, and organized or soft exudate covering the appendix.

An early operation, preferably in the stage of appendiceal colic is the only rational procedure and is the only treatment that will reduce the mortality in acute appendicitis to insignificant figures. Furthermore, no patient should be permitted to have a second attack of appendicitis no matter how mild the first.

GALLSTONE OBSTRUCTION OF THE BOWEL.

A. C. Wood (American Medicine) reports the case of a woman, aged fifty-eight, operated upon for intestinal obstruction. The obstruction was found to be due to a gallstone in the ileum, six inches above the valve. The stone was removed through an incision. It weighed 11.6 grammes, and measured 9.3 by 8 centimeters in circumference. A second stone, weighing 9 centimeters, was removed from the gall-bladder through an incision over the latter. The patient recovered. Brief notes of 21 additional cases, collected from the literature of the past five years, are appended. Of these 22 cases, 12 recovered and 10 died—mortality 47 per cent. But two of the number were men. The ages ranged from thirty-one to seventy-three.

The average of the women was 59.85 years. One-half of all the cases occurred in the sixth decade. The site of the obstruction was: Duodenum, 1; duodenojejunal junction, 1; jejunum, 2; "small intestine" (probably ileum), 1; ileum, 11 (probably 15); ileocecal valve, 1; colon, 1; not stated (probably ileum), 3. In one case the stone was in a mass of adhesions in the gall-bladder region and caused obstruction by setting up a local peritonitis.

EXTENSIVE RESECTION OF THE WALL OF THE BLADDER FOR CARCINOMA, WITH FAVORABLE RESULTS.

Dr. S. Derjushinsky (St. Petersburg Medizinische Wochenschrift): A woman 62 years of age, complained of pains in the bladder and hematuria. The cystoscope revealed a tumor on the anterior wall of the bladder. On May 24, 1902, Sectio Alta. After opening the bladder, the neck of the bladder and ureteral openings were found to be free, as the tumor was confined to the anterior and lateral walls of the bladder. Therefore, resection was made involving two-thirds of the bladder. The bladder sutured, tamponade, of the perivesical connective tissue. Catheter a demeure. After removal of the catheter, there was a fistula over the symphysis. The patient had strangury every twenty minutes. In September, 1902, the fistula was unaltered and incrustations could be demonstrated in the bladder. On the 3d of October the bladder was opened again, and an incrustated silk thread removed. In the wall of the bladder no recurrence apparent. Fistula closed, but in the middle of November serum began to ooze. Hematuria began, and there were pains over the symphysis and thighs. In December an exacerbation was proved. Exitus January, 1903. Autopsy: Exacerbation in bladder; multiple metastases in the peritoneum; left sided hydronephrosis by closure of the ureter by the carcinomatous growth.

THE OPTIC AND OCULAR FACTORS IN THE ETIOLOGY OF THE SCOLIOSIS OF SCHOOL CHILDREN.

George M. Gould (American Medicine) says that 27 per cent. of all European school children, probably of American also, have lateral spinal curvature, and the fact constitutes a source of disease, suffering, and death greater than many others about which the profession and the public are infinitely more concerned. But the cause of lateral curvature remains a most perplexing mystery. In some way or other orthopedists and hygienists usually charge it to school life, posture in study, and, more closely, to the writing posture. The slanted style of hand-

writing is by many believed to be the source of the mischief. Dr. Gould sets forth the reasons why it is the consequence of visual function—a certain proportion being due to a peculiar axis of astigmatism, compelling a lifelong canting the head to one or the other side in order to see plainly. But a larger number of cases arise in the habitual bending of the head and body to the left in writing. This necessity of bending the head to the left is caused by the impossibility of seeing "the writing-field," or what is being written when the paper is placed, the pen held, and the body postured as commanded by all teachers and writing masters of the past. This is illustrated by photographs, and can be demonstrated by observation of others or by one's self in writing. The right eye (one is right-eyed, as he is right-handed) must see the writing-field. The habitual cervical curve, it is suggested, with convexity to the right neglected by orthopedists, by compensation creates the secondary spinal curves lower down. The prophylaxis and cure consists in placing the paper opposite the right shoulder, 14 inches from the eyes, and upon a desk leaf slanted at least at 30 degrees, whereby the body may be kept erect, hygienically posed, and the writing plainly seen. If this is impossible because of old school desks, a peculiar angled penholder devised by Dr. Gould may be used. The Oriental style of grasping the holder may be used, or, as somewhat common, held between the first and second fingers. If this theory is true, the Oriental schoolchildren should be relatively free from spinal curvature.

GUMMA OF THE CILIARY BODY.

Dr. K. Campbell Highet. (Jour of Malaya Branch of Brit. Med. Asso.): According to Berger only five cases of gumma in the ciliary body have been reported up till 1892. Mauthner, Wolnow, Arlt, Ayres, and Panas respectively have reported a case.

The case reported is very typical. A gumma of the ciliary body usually appears in one to three and a half years after the appearance of the initial lesion. It is generally preceded by iritis as in this case. The number of gummata has varied in the former cases from one to five in each case. In this case there were three gummata. The resulting bulging of the sclera may increase and give rise to opacity of the neighboring parts of the cornea, as in the case now reported.

Treatment.—In this case a smart purge was given, and a quarter of a grain of calomel combined with opium was given every three hours.

Prognosis.—With good treatment a fairly useful organ may remain.

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EDITORIAL.

MUSICAL HEART.

Dr. Joseph M. Patton, of Chicago, has recently reported the autopsy conditions found in a case of so-called musical heart, according to the Journal of Medicine and Science. The patient was a Russian who had suffered from heart disease for several years. The diagnosis of his disease, determined by many examinations, had been inefficiency of both the mitral and semilunar valves. The heart was hypertrophied and dilated. The impulse was heaving and diffuse, and the rhythm somewhat irregular. Auscultation determined both double mitral and double aortic murmurs, both of which were in no way particularly unusual.

The musical murmur which characterized this case was systolic, and varied in pitch being at times high and sharp and again lower and more sonorous. This peculiar musical sound was supposed to be due to some abnormal condition of the chordae

tendineae. Just before death the patient had suddenly become markedly worse and the musical tone had disappeared.

Murmurs are generally considered as due to vibrations in the blood stream and they are of a more or less harsh and blowing character. In order to produce a musical murmur it is probable that to this vibration in the blood current is added a vibration, probably under increased tension of some one of the structures of the heart itself.

The postmortem in this case showed that the mitral valves were markedly affected by vegetations, the anterior cusp was unusually long and covered with coarser vegetations and its edges deeply serrated. "Two chordae tendineae which were attached to the tip of the anterior cusp and to the papillary muscle at the apex of the ventricle were thickened and covered with fine vegetations. Their valvular attachment was broken and they floated loose in the cavity of the ventricle, being attached only to the papillary muscle. The aortic valves were retracted by curling and thickening of their edges. From the corners of the base of the cusps, on their aortic surface, there are short cords about the thickness of chordae tendineae, from one and a half to two centimeters long, which attach the base of the cusps to the vascular wall. Anteriorly there are two of these cords, posteriorly and to the right there are two, and posteriorly and to the left there are three. A communication exists between the right auricle and the base of the left ventricle, the auricular opening being near the base of the posterior cusp of the tricuspid valve, and the ventricular opening being between the base of the left cusp of the aortic valve and the base of the anterior cusp of the mitral valve. This opening admits a match, but its auricular orifice is closed by a papilla which acts as a valve.

"The gross findings in this case are those of double lesions of the mitral and aortic orifices. Concerning the production of the musical murmur, there are only three factors to be considered in view of the integrity of the auricular and ventricular septa. These factors are the connection between the right auricle and left ventricle, the cord-like attachments to the arterial surface of the base of the aortic valve cusps, and the thickened chordae tendinae, whose attachment to the mitral valve had been broken. It is hardly conceivable that either of the two former could be of importance in this connection because it is not evident that there was much or any current through the opening between the right auricle and the left ventricle, or that the adventitious cords in such a situation could possibly be connected with the production of such a long, high-pitched sound. Again, these conditions

were still present after the murmur had absolutely disappeared, the heart action meanwhile being relatively good. The sudden disappearance of the murmur before the heart showed serious signs of failure can only be explained by the breaking of the valvular attachments of the chordae tendineae, which were involved in the inflammatory process. The greater tension of these cords during systole, which would be the result of their thickening, might easily result, with a cord of such length in the production of a high pitched and sustained tone as characterized the heart action in this case."

Musical murmurs are not very uncommon in cases of severe endocarditis, and their occurrence, judging by the lessons of Dr. Patton's case, indicates a more extensive degree of involvement of the tissues of the heart than is necessary for the production of the ordinary blowing murmurs.

THE RELIEF OF PAIN.

From time immemorial pain has been spoken of as one of the curses of mankind; as a punishment for our sins and for those of our ancestors. In a great majority of cases it is for the relief of pain that one calls a physician. Therefore, this symptom which is so urgent, and so almost universal, deserves our most careful study.

What is pain? Is it merely an arbitrary punishment; a malicious curse; or has it some use in the animal economy? A little reflection will show us that the ancient, and still popular, phrases used in speaking of pain are not scientifically correct. Perhaps it would be more strictly true to call them figures of speech.

Pain is a symptom common to many diseased conditions; and it is these conditions which result from our ignorant or willful disobedience of the laws of nature, from our inheritance, and from our environments.

It is the pain which calls attention to the causative morbid process. In many instances, take tuberculosis and cancer for examples, it is those diseases which in their incipency cause little or no pain that are most to be feared. They are allowed to progress beyond hope of cure before pain drives the patient to seek medical assistance. Were there no such thing as pain, most diseases would be allowed to advance unchecked, and to destroy vital organs before the victim suspected that he was attacked. It is, therefore, indispensable to the preservation of the race; an evil, if you will, but a necessary one.

After the pain has forced the sufferer to summon a physician it helps to point out the seat of the disease. The particular

character presented by the pain, such as a dull ache, an acute, stabbing sensation, a burning, a boring, an intermittent pain, all these serve to indicate approximately the nature of the morbid process. The intensity of the pain is often an index of the severity of the disease.

But after the physician has taken charge of the case and has made his diagnosis, the office of pain has been fulfilled. From that time on it is merely useless suffering. It is now the first duty of the physician to use all means in his power to abolish it. There are many other signs by which he may usually judge of the progress of the case; by local symptoms, by the temperature, the pulse, the expression of the face as a whole and of the various features; in particular the condition of the respiratory and of the digestive systems, the strength of the patient, etc.

Let us inquire briefly into the nature of pain. The sensation we call by this name is caused by irritation of the nerve element; this gives rise to a powerful impulse which is carried to the brain and there recognized. Some say that there are special nerves for pain, while others deny this; but for our present purpose the point is not essential. This irritation may be a mechanical one, such as pressure, a blow, or the actual cutting or tearing of the nerve fibre; it may be caused by an excess of heat or cold, or by an electric current; also, by numerous chemical substances. The first of these, namely, pressure, is probably the commonest cause of pain; the pressure on the nerve fibres occasioned by the swelling of inflamed tissue is a well known example.

Numerous indeed are the measures which have been devised to relieve pain; heat, both dry and moist, and applied in many ways; cold, both dry and moist, and varying in degree from that which merely cools the surface to the application of ice and salt or of rapidly evaporating liquids which numb the part by the severe chill; counter-irritation by many methods has been used for ages. Rest to the painful part is of prime importance; the position in which the part is placed, by influencing the flow of blood to it, is a factor to be recognized. In some instances external pressure on a part will lessen the pain, as when we firmly grasp a cramping muscle.

We will not discuss the subject of hypnotism, because it is, as yet, so little used; but it is a real influence, and a powerful one.

The question of drugs is a broad and interesting one. So many substances are useful in the relief of pain in its various aspect that to discuss them all would require a large volume. Only the most important ones can be mentioned here, and briefly, at that.

Drugs may relieve pain in different ways; by obtunding the sensibility of the centers where pain is perceived; by diminishing, or temporarily abolishing, the carrying power of the nerves; and by inhibiting the primary reception of the sensation by the nerve endings.

The general anaesthetics, chloroform, ether, nitrous oxide and a few others, have been such a great boon to humanity, especially in surgical work, that they are beyond praise.

For local anaesthesia we have cocaine, the various drugs which come under the head of anodynes, and the freezing applications.

In rheumatism and kindred affections the salicylates often give great relief. Many of the coal tar products are useful analgesics. The bromides have a wide range of usefulness. Atropine is invaluable for the relief of spasm.

But after reviewing this long list, we see that there are none which can be compared to the great standby of the profession, opium. So strong and certain is its action that it must be counted as one of the greatest blessings vouchsafed to mankind.

As opium is a very complex substance, chemists have been at work for many years separating its various constituents and making new combinations of them; and also making artificial derivatives.

Morphine brings sleep and relieves pain; apomorphine produces vomiting; codeine relieves pain and lessens reflex sensibility.

Papine is, perhaps, the most generally useful of pain relievers. Although an opiate, it has almost no other effect, and produces no disagreeable consequences. Such good clinical reports have been received concerning this drug that we feel justified in recommending that it be given a trial. A teaspoonful of papine is equal in anodyne power to one-eighth grain of morphine.

BACKACHE IN WOMEN AND ITS TREATMENT.

Dr. William E. Parke, in a discussion of the subject before the Pennsylvania Medical Association said that backache had been observed as a frequent symptom in women seen in gynecological dispensary service. A record of 1,000 cases showed the symptom present in 25 per cent. The seat of pain was in the lumbar, the sacral or the coccygeal region. The lumbar pain he attributed due to some general disorder, the sacral and coccygeal to disorders of the pelvic viscera. Neurasthenia was considered the most frequent cause of backache and this in turn might be due to a pathologic condition of the pelvis. It was present 194 times in backward displacement and absent only 40

times. The condition, he said, was sometimes due to toxemia from intestinal absorption or imperfect metabolism and to congestion of the menstrual period. Pain in the coccyx while due to inflammation, dislocation or fracture was often a pure neurosis. Many of the diseases of the bones, muscles, kidneys and nerves giving rise to backache were not referred to. The treatment was said to be complex and often unsatisfactory. It was noted that toxic and lumbar backaches were treated with laxatives, diuretics and colon irrigation. For some salol, salicylates or iodides were suggested, and for the congestive type ergot, digitalis, strychnine and bromides. For the anemic cases he advised iron and tonics. Local counter-irritation was mentioned as a means affording temporary relief. For neurasthenics he advised rest cure. Surgical measures for the sewing up of lacerations, correction of malposition and removal of diseased organs and tumors were to be employed as indicated.

Dr. Charles P. Noble, believed that renal trouble seldom caused backache. While a certain amount of pain was present in the back in acute nephritis, he had not observed this in chronic nephritis. In movable kidney, as a rule, there was no backache, and when present, it was, in his opinion, due to congestion or to torsion of the ureter. The method of treatment suggested, he agreed, was the one to follow; namely, to find the underlying cause and apply the therapeutics, whether medical or surgical.

Dr. Wilmer Krusen agreed with Dr. Parke upon the value of drinking large quantities of water since a rheumatic diathesis was frequently found associated with pelvic disease. He mentioned a case in which the right kidney had a mobility of about four inches and had become almost twice normal size. The ureter had become partly twisted and intense backache was present. Dr. Krusen had never seen a case of nephritis with backache, although the laity think kidney involvement is present when there is backache. There were pains, he said, due to the lithemic diathesis, and to traumatism. He referred to a case in which a woman had lifted a heavy weight in a strained position which was followed by as persistent backache as if the muscle had been divided. The facts that women were habitually constipated, and drank but small quantities of water were considered factors to be remembered in the treatment of backache.

For obesity, Dr. Bartholow, recommended potassium permanganate in doses of one-fourth to one grain before meals. It is especially good for the acute gaseous dyspepsia of the corpulent.

BRIGHT'S DISEASE.

This term has been applied to several slightly different affections; to almost any disease, in fact, in which nephritis is a prominent symptom. The science of pathology has advanced so greatly since the word was introduced that it would be much better to discontinue its use, and to describe whatever condition we find in concise, technical terms.

The acute nephritis following a chilling of the surface has been called by this name; also, the acute nephritis following any of the exanthemata. It is more usual, however, to apply the term to chronic nephritis. Of this we have several forms. There is a chronic parenchymatous nephritis, that is, one involving principally the lining epithelium of the uriniferous tubules, with more or less involvement of the glomeruli. A variety of this seems to involve the glomeruli primarily, and the tubular epithelium secondarily and to a less degree. Chronic interstitial nephritis consists of a proliferation of the connective tissue of the organ, which, by its growth, gradually compresses the glandular structures and curtails their blood supply, thus gradually causing an atrophy of these elements.

Some authors have described what amounts to a combination of these two forms, which they call chronic diffuse nephritis.

The causes of these conditions are many and various. As in cases of hereditary gout, there seems, in some instances, to be an inherited predisposition to degeneration of the kidneys. Owing to the great amount of excretory work which these organs are called upon to perform, they must bear the brunt of most of the poisons which circulate in the blood; the poisons accidentally taken into the system as such, those caused by the many fermentative agents in the alimentary tract, those formed by the natural waste of the tissues, and those elaborated within the body by pathological processes.

Considering the many directions from which the kidneys may be attacked, we wonder not that they are so frequently diseased, but that they are so frequently sound.

General arterio-sclerosis is invariably accompanied by nephritis, usually of the interstitial variety; but in this instance, as in all others, when the connective tissue of the organ is greatly proliferated, whether it be that in the walls of the arteries or the interstitial tissue, the secreting parts always suffer to a greater or less extent. In this form of nephritis, it is still a moot point whether the primary affection is the general arterio-sclerosis or the nephritis. One very plausible theory is that when the kidney has been partially disabled by the loss of some of its secreting structures, the necessity for excretion calls for a greater supply of blood to the organs. To accomplish this,

the heart must work harder, and in response to the raised blood pressure so caused, the arteries all over the body are kept in a constant state of contraction, which finally results in a hypertrophy of their walls.

This last form, nephritis with arterio-sclerosis, is quite common among men who have led lives of exposure, who have worked hard, drunk hard and eaten generously. When they approach middle life and begin to think about laying up something for the future, they often apply for life insurance, and the first intimation they have that their kidneys are affected is the report of the examiner that there is albumen in the urine. A little search then reveals the fact that all the arteries are more or less rigid, and that the heart is hypertrophied to some extent. That is all; they are still in apparently excellent condition, robust, bronzed men, capable of doing a hard day's work.

But the time has come for them to stop and consider, if they want to live much longer. Patients of this class are especially hard to deal with; they feel no ills, and it is difficult to convince them that they are in danger. They have always lived a free, independent life, a "strenuous life," have probably been in command of other men, and are impatient of any restraint.

Nevertheless, it will probably not be long until, following some excessive exertion, some intercurrent attack of sickness, some drinking bout, the kidneys will be found unequal to the task of eliminating the wastes of the system, and the condition will declare itself unmistakably. There may be merely dullness, lassitude and headache; there may be sudden blindness from retinal hemorrhage, often there is puffiness of the eyelids and swelling of the feet and ankles; or uremic coma and convulsions may supervene.

From first attacks they will usually recover, under proper treatment. The principal indication is to help the kidneys by stimulating the skin and the bowel to aid in the elimination of the toxins which pervade the system. To this end, a hot bath every day with brisk friction afterward is an excellent measure. The bowels should be made to act to or three times a day, preferably by salines.

From this time on the diet must be light and simple, with no meat at all for a while, and the return to it must be very gradual. Alcohol must be prohibited entirely. As soon as the patient is able, he should take gentle exercise and get plenty of fresh air, but when he goes out he must be dressed warmly in cold weather so that the circulation in the skin and the perspiration may not be interfered with.

As to drugs, it is almost useless to try to deal with the kidneys directly. The prin-

cipal effort should be to equalize the circulation and prevent excessive blood pressure. Nitro-glycerine is useful for this purpose, but its administration must be watched. If the blood pressure should become too low, the kidneys will not be able to perform their function. In such a case digitalis and strychnine are often given. For a routine tonic there are some vegetable principles which are often very useful; oxydendron arboreum and sambucus canadensis, which are contained in the mixture known as anasarcin, are frequently advantageous.

In some parts of the South, anasarcin is given almost exclusively as a tonic. But the main idea is to give just enough food of the right kind, and just enough exercise, to maintain the nutrition of the body, to avoid burdening the kidneys with any unnecessary work, and to see that the skin and the liver perform their full share of the elimination.

Abstracts and Selections.—Continued.

ASHEVILLE, NORTH CAROLINA.

Asheville, on the Southern Railway, is the center of the beautiful "Land of the Sky." It is a superb elevated plateau, the lowest point of which is 2,000 feet above the level of the sea, situated in the most favored portion of the temperate zone. The official Government records of the climate of Western North Carolina, which are unimpeachable evidence, give the following averages: Spring, 53.49 degrees F.; summer, 70.72 degrees F.; autumn, 53.48 degrees F.; winter, 38.67 degrees F.; with a mean for the whole year of 54.15 degrees F., and a mean relative humidity of but 65 per cent. This is a natural paradise where all human ills find quick relief. Illustrated descriptive pamphlets can be had by applying to George B. Allen, Asst. General Passenger Agent, Southern Railway, Chemical Building, St. Louis, Mo., or C. H. Hungerford, D. P. A., 232 Fourth Ave., Louisville, Ky.

SPONDYLOSE RHIZOMYELIQUE; A STUDY OF THE RELATIVE FREQUENCY OF SPINAL INVOLVEMENT IN RHEUMATOID ARTHRITIS, WITH AUTOPSY FINDINGS.

Fourteen cases are reported by D. J. McCarthy (New York Medical Journal) who makes a brief mention of the cases of rigidity of the spine reported since von Bechterew's revival of the subject in 1893. His own paper discusses spinal rigidity (1) As a separate and distinct clinical and pathological entity and (8) as a local manifesta-

tion of rheumatoid arthritis. His personal conclusions are as follows: (1) That ankylosis and rigidity of the spinal column is a frequent manifestation of advanced rheumatoid arthritis; (2) That it may develop early in the course of the disease and be associated with irritative root symptoms; (3) That if the disease described by von Bechterew is to be considered as a distinct clinical entity separate from rheumatoid arthritis, it should only be diagnosed as such after the disease has progressed over a considerable period of time without involving joints other than those of the spinal column; (4) That we are not able at present to differentiate from rheumatoid arthritis that large group of cases, reported by Marie and others, where the rigidity of the spine is associated with changes in the hip and other joints.

ALCOHOL IN CARBOLIC ACID POISONING.

C. V. Burke (Therapeutic Review) believes that the general teaching concerning carbolic acid poisoning is erroneous. In the first place, the prognosis is much more unfavorable than generally considered. In twelve cases he has seen but two recoveries. The ordinarily recommended antidote magnesium or sodium sulphate, he says, is useless. On the other hand alcohol is of great value. A stomach tube should be passed and the stomach washed out with diluted whisky.

TEMPOROSPHENOIDAL ABSCESS OF OTITIC ORIGIN.

Alice E. Wakefield (Archives of Otolaryngology) reports the history of a case of latent temporosphenoidal abscess of otitic origin, which was followed by multiple secondary cerebral abscesses, and presents the following conclusions:

1. The history of this case emphasizes the fact that cerebral abscess may develop insidiously and remain quiescent, manifesting no characteristic symptoms for an indefinite period, until some acute illness or violent physical exertion renders the latent process manifest.

2. Uncomplicated acute cerebral abscess may be accompanied throughout its course by repeated chills, high temperature, and rapid pulse and respiration.

3. Localizing symptoms may be absent, unless the abscess itself or the surrounding encephalitis encroaches upon cortical areas whose functions are definitely known.

4. Chronic suppurative otitis media attended with persistent localized headache and occasional attacks of dizziness, nausea, and vomiting, and with progressive loss of

flesh and strength, should in the absence of tuberculosis or other malignant disease suggest the possibility of latent cerebral abscess.

5. The importance of post-mortem examination in obscure cases can not be too strongly emphasized.

NEW OPERATION FOR THE RELIEF OF FLATFOOT.

Wilson and Patterson (American Medicine) presents a favorable report of a new operation for flatfoot which they have employed, consisting of an arthrodesis of the astragaloscaphoid joint and the transplantation of the tendon of the extensor proprius hallucis through a hole drilled in the scaphoid bone, all an adaptation of Wolf's operation for paralytic valgus. The loss of function of the transplanted extensor of the great toe is but temporary, and until the extensor brevis digitorum becomes educated to overcome the toe-drop. The after-treatment is fully as important as the operative correction, and consists of well-adapted physical culture drills. This procedure has yielded better functional results than is possible by the use of arthrodesis alone. The combined operation for flatfoot, now described for the first time, offers no serious difficulties, the additional damage to the structures of the foot necessitated by this procedure is inconsiderable, the time required for treatment not longer, and the results obtained more certain and satisfactory. It would therefore seem well to use the combined operation in all suitable cases.

ETIOLOGY OF PUTRID PLEURISY IN CHILDREN.

Gaetano Melli (Rivista di Clinica Pediatrica) made careful bacteriological examinations of the exudate in two cases of empyema in which there was an odor of decomposition to the discharge, in order to ascertain what bacteria were present. The germs that are generally found in such cases are the pneumococcus, staphylococcus, tetragonous, bacillus coli, proteus vulgaris, leptothrix, bacillus of diphtheria, etc. One of his cases was secondary to typhoid fever. In this case there were present in the exudate the streptococcus and the bacillus of Eberth, and the bacillus fusiformis of Vincent. This is the first time that the bacillus of typhoid has been reported in empyema. In this case it was found in large numbers in the gangrenous foci and in the tissue about them. It was demonstrated to be virulent to animals. This germ when associated with the streptococcus acquires added virulence. In the second case also he found the streptococcus associated with the bacillus fusiformis of Vincent. This micro-organism is found habitually in gan-

grenous foci of ulceration of the mouth, and it is now thought to be specific in this disease. Putrid pleurisy is usually associated with gangrenous foci in the lungs, which was the case in these two examples, one from the pneumonitis of typhoid, the other from an infection with the spillum of Vincent from an ulceration in the mouth.

SUPPURATION OF AN OVARIAN CYST AFTER ENTERIC FEVER.

R. Zantschenko (Monats. f. Geb. u. Gyn.) reports a case of extirpation, eight months after recovery from typhoid fever, of an ovarian cyst, which during that interval had enlarged and suppurated. Examination of the contents for micro-organisms, and the cultures obtained thereby, proved that the infection of the cyst was entirely due to the typhoid bacillus, and had occurred through the blood-vessels at the time of the fever. The tumor originally was a pseudo-mucous ovarian cyst, and suppuration of such has not been previously recorded.

DIAGNOSTIC, PROGNOSTIC, AND THERAPEUTIC VALUE OF LUMBAR PUNCTURE IN THE NEW-BORN.

Louis Devraigne (La Presse Medicale) believes that lumbar puncture can be of great use to the accoucheur as a means of diagnosis, and from the standpoint of prognosis and treatment in cases of submeningeal hemorrhage in new-born children. Whenever this hemorrhage is beneath the membranes it establishes the diagnosis if puncture is made before the child is moribund, and after the cerebrospinal fluid has had time to become tinged with the blood of the hemorrhage. If the hemorrhage is between the membranes and the skull the fluid will remain clear. In true intradural hemorrhage there will be convulsions, cyanosis, and coma, contractures, and rise of temperature. Soon after the puncture the condition of the child should improve, and the prognosis will become less grave. After one or two punctures the child may recover entirely. The operation is very easy in the new-born. It is absolutely without danger.

MODERN TREATMENT OF TUBERCULOSIS.

C. O. Probst (Journal of the American Medical Association) describes the modern pure air, rest and diet treatment of consumption, and insists especially on the individualizing of the treatment. Otherwise the patients may come to think the physician of very little use. He has a poor opinion of ordinary tents as affording insufficient ventilation and

holds that exercise should be especially controlled by the physician. In conclusion he emphasizes three points: First, the supreme importance of early diagnosis; second, the strict enforcement of a daily regimen, reduced to writing and carefully planned for each individual case; third, the necessity of a comprehensive understanding of the character of the patient, a knowledge of the nature and extent of his lung lesion, and a full appreciation of the importance of even the minute details of his environment.

TREATMENT OF CEREBROSPINAL MENINGITIS.

Franca (*Deutsche med. Wochenschrift*) says that during the epidemic of cerebrospinal meningitis in Lisbon in 1902 the mortality of 47 cases in which the patients were treated by lumbar puncture alone was 63 per cent. In 9 patients treated by lumbar puncture and injections of cyanate of mercury it was 66 per cent. In 58 patients treated by lumbar puncture and injections of one per cent. lysol solution it was 29.3 per cent. The writer drew off 25 to 50 cubic centimeters of cerebrospinal fluid and injected 3 to 9 cubic centimeters in children and 12 to 18 cubic centimeters in adults of a one per cent. lysol solution. The injections were repeated every day until the fluid was sterile, which was in a few days. Patients treated in this manner were noticeable by reason of a lack of emaciation and trophic disturbances.

THE TECHNIC OF PROSTATECTOMY.

Ramon Guiteras, M. D., New York (*Monatsberichte f. Urologie*): The technic of the operation of prostatectomy advocated by the author at present is as follows: Patient is prepared in the usual manner, etherized, and placed upon his back on the operating table. A lithotomy guide is then passed through the urethra into the bladder and the patient placed in the lithotomy position. An external perineal urethrotomy is then performed, opening the membranous urethra. This opening should then be dilated, to permit the introduction of a pair of curved scissors into the urethra, until they have passed the apex of the gland, when a transverse incision is made in its floor.

When the lateral lobe is freed, the forceps are then placed upon it and it is delivered. The gland having been removed, it is well to palpate the region to see that everything is free. The bladder is then flushed out with hot water, followed by a second irrigation of 1 in 10,000 bichlorid of mercury solution, and a perineal drainage tube is inserted into the bladder. The tube remains

in the same position as in the case of an ordinary external urethrotomy, and is removed at the end of a week, after which, a large sized catheter is passed through the entire urethra into the bladder and allowed to remain until the urethra closes above it and the external perineal opening has filled in.

THE FREEZING POINT OF THE BLOOD IN PREGNANCY, LABOR, AND CHILD-BED.

L. Fueth (*British Gynecological Journal*) concludes from thirty exact experiments that the freezing point of the blood of women during gestation and labor at term is distinctly (from 0.035 degrees to 0.04 degrees C.) higher than that of the blood of women who are neither pregnant nor parturient. This fact can not, as has been supposed, depend upon hydremia, which recent researches have proved to be absent. Various causes might account for the elevation of the freezing point—difference in the renal activity, or in the nutrition or altered respiration, and consequent difference in the caseation of the blood; but exact researches prove that none of these can be accepted, so that Fueth has to content himself with publishing the fact of this remarkable condition without being able to offer any explanation of it.

RADIOTHERAPY AND SURGERY, WITH A PLEA FOR PREOPERATIVE RADIATIONS.

William T. Morton (*Medical Record*) draws the following conclusions:

1. Radiation treatment exerts a retarding effect upon the growth of some cancers.
2. It cures some cases—the ratio to operative measures is not here discussed.
3. Preoperative radiation will increase the ratio of cures by operation.
4. Preoperative radiation transforms some inoperable cases into operable cases.
5. Preoperative radiation is recommended as a precautionary measure, probably quite as important as preoperative antiseptic preparation for surgical operation.

SURVIVAL AFTER INTERSCAPULO-THORACIC AMPUTATION FOR MALIGNANT TUMORS.

E. Jeanbraun and V. Riche (*Revue de Chirurgie*) have collected 125 cases of interscapulo-thoracic amputation of the upper extremity, from various operators, with a view to ascertain the mortality and the length of survival after this operation in cases of malignant tumor. These cases were collected from the personal records furnished by surgeons of good standing

of all countries, so that the statistics obtained are of much more value than ordinary hospital statistics. The author gives us these conclusions: The mortality of the operation is 7.84 per cent. since 1887, against 26.16 per cent. previous to the introduction of the technique of Berger-Farabeuf. If we do not take into account the cases in which outside causes operated to produce death, the mortality has fallen to 5 per cent. The average life of patients after operation has been three years. This is an excellent result when we consider that the patient accepts this serious operation only when he has reached a very advanced stage of disease, and when the general health has become very much impaired. Cure is possible, since there are found twenty-four cases of cure in the last five years. Among these are patients who have lived thirteen, fifteen, and twenty-six years after operation.

A CASE OF LONG-STANDING MAJOR HYSTERIA CHARACTERIZED BY A PAROXYSMAL AND FIXED PAIN, MENTAL DEPRESSION, DELIRIUM, AND HALLUCINATIONS—RECOVERY.

T. Dillon (Medical Record) reports the case of a married woman of thirty-five who for over two and a half years presented the picture of serious illness, of which uterine hemorrhage, severe auto-intoxication, mental depression, delirium, elevation of temperature, dyspnea, and great local tenderness and pain in the left lower abdominal and inguinal regions were different phases. No organic basis for the clinical condition could be detected, and one day during a consultation it was suggested that an exploratory incision be made through the tender abdominal muscle. From that day the patient began to improve, and three weeks later was discharged, apparently in the best of physical and mental health.

BRAIN HEMORRHAGE.

W. A. Dickey (Journal of the American Medical Association) considers alcohol and syphilis the two most prominent causes of arterial degeneration favoring brain hemorrhage; next to these comes chronic interstitial nephritis, and after this a multiplicity of other factors leading to arterial decay. Still another factor is required in all cases, namely, increased intracranial blood-pressure, such as may be caused by muscular effort, indigestion, etc. Besides the prophylactic measures, such as quiet, avoidance of whatever may cause cerebral congestion, increased work of the heart, etc., he advises for the attack itself the use of powerful cardiac depressants, naming, in the order of

their importance, aconite in full doses, veratrum viride, gelsemium, and venesection. Gelatin is, he thinks, too slow in its action and not always practicable. Cathartics should be avoided for the first few days, and he sees little utility in an ice-cap to the head. The patient should be kept absolutely quiet in bed for ten days or two weeks.

THERAPEUTIC VALUE OF MEDICATED OINTMENTS IN CERTAIN AFFECTIONS OF THE NASAL CHAMBER.

Alex H. McCoy (Medical Record) says that notwithstanding the bent of mind toward surgical procedures for the relief of diseases of the nasal chambers, the rational employment of drugs must still keep our attention. Our constant and persistent use of nasal washes, especially during the winter season in our climate, tends to harmful results. By the employment of curative medicaments in the form of soft ointments in the nasal chambers we can avoid certain risks following the use of washes, etc. The availability, convenience, and adaptability of medicated unguents in the therapeutics of the nasal chambers appeal in a rational manner for their employment. Ointments prescribed should be dispensed in collapsible tin tubes, as this renders them most convenient for use at all times and in all places.

THE ABNORMAL GROWTH OF EPITHELIUM IN WOUNDS AND TRAUMATIC EPITHELIAL CYSTS.

Pels-Leusden (Deutsche medizinische Wochenschrift) believes that not alone the superficial epithelium of the skin, but also that of the sweat and sebaceous glands as well as of the hair follicles form a matrix for the proliferation of epithelium in the skinning over of wounds. The epithelial lining often found in tuberculous sinuses is probably a prolongation of the skin epithelium, but the writer has found a similar lining in superficial tubercular abscesses that had not yet formed a communication with the surface of the body. That the denuded cutis may receive a new epithelial covering from these appendages of the skin has already been shown (Rosenblat). In the closed tubercular abscesses above mentioned, Pels-Leusden again derives the epithelial lining from the epithelium of the cutaneous glands. It seems probable that the sudoriferous glands play the most important role, since their convoluted extremities lie deeply imbedded in the fat of the cutis. The author rejects the theory that traumatic epithelial cysts arise from the healing of the skin over an area of epithelium and cutis depressed beneath the surface by the trauma-

tism. In the palm of the hand where these cysts most commonly occur, the skin is particularly dense and resistant. He ascribes these cystic tumors to a proliferation of the epithelium of the glandular appendages of the skin, due to the irritative influence of a foreign body. Such a foreign body may be absorbed or overlooked at operation. It is possible that the fatty acids may act as such, or a blood clot following a traumatism, especially when the continued use of the hand prevents the union of the edges of the wound. Experimentally the writer reproduced these tumors by inserting plates of magnesium into the cutis of rabbits' ears. The plates were gradually absorbed, leaving behind cysts that in the earlier stages showed a partial epithelial lining, and in the latter stages were completely lined by an epithelium in which all the strata of the normal structure were reproduced.

ADENOIDS IN THE ADULT.

Donald M. Barston (New York Medical Journal) says that adenoid growths in the adult are much more common than is generally supposed.

The condition is a frequent cause of nasopharyngeal catarrh, with dropping back of mucus and frequent clearing of the throat. It is also a frequent cause of nasal obstruction, and is the causative lesion in some cases of apparent hypertrophic rhinitis. The cases reported show that a thorough examination of the nasopharynx should be made in all cases of ear disease and pulmonary tuberculosis.

The treatment is not difficult, and the results are occasionally brilliant and rarely unsatisfactory.

REFLEX DISTURBANCES ASSOCIATED WITH ADHERENT PREPUCE.

Robt. M. Simon (Archives of Pediatrics) reports three cases. The first, a boy aged eighteen months, who suddenly became unable to walk, complained of pain in the hip, increased by attempts at walking; notwithstanding the dragging of the leg, hip disease was not present, inasmuch as after circumcision there was complete and immediate recovery. The second case was that of a boy of fourteen years, who appeared to have severe intestinal colic; failure of treatment by ordinary methods was followed by success after circumcision, no medicines being given. The third patient, three years old, was troubled with night screaming and complained of pain in the abdomen. Treatment for intestinal indigestion brought no improvement, but the narrowness and adhesions of the prepuce were corrected and

after this there was permanent cessation of the symptoms.

In commenting on the cases, the writer explains the first case as due to an inhibition of the spinal nerves; the second as a reflex pain; and the third case was probably a pain from a distended bladder and erection of the penis, since the child would go to sleep after the urine had been voided.

THE BLOOD AND CIRCULATION IN UNCINARIASIS.

W. G. Harrison (Medical News) says that uncinariasis through its extreme anemia exerts a most marked influence on the heart, causing apparent increase in size (most likely dilatation), heaving pulsations, relative insufficiency, thrill and murmurs. While these conditions may be accompanied by an accentuation of the pulmonic second sound, nevertheless they rapidly disappear when the cause of anemia is removed, and by slow degrees the accentuation is likewise obliterated. The murmurs are mostly aortic, soft, and blowing, and are both systolic and diastolic. The fact that the area of heart dulness seems to diminish perceptibly after the relief of the anemia suggests dilatation. The blood-cell changes are not especially significant. No megaloblasts were found in these cases, as has been the rule in previous work. The rise of blood-pressure beginning immediately upon removal of the cause is a safe index of the returning strength of the heart.

FINAL RESULTS OF THE X-RAY TREATMENT OF CANCER, INCLUDING SARCOMA.

Since February, 1902, William B. Coley (Annals of Surgery) has made an earnest endeavor to determine the value of the X-ray in the treatment of malignant tumors, and he arrives at the following conclusions: (1) That the X-ray exerts a powerful influence upon cancer cells of all varieties, but most marked in cases of cutaneous cancer. (2) In some cases, chiefly in superficial epithelioma, the entire tumor may disappear, probably by reason of fatty degeneration of the tumor cells with subsequent absorption. (3) In a much smaller number of cases of deep-seated tumors, chiefly cancer of the breast and glandular sarcoma, tumors have disappeared under prolonged X-ray treatment. In nearly every one of these cases, however, that has been carefully traced to final result, there has been a local or general return of the disease within a few months to two years. (4) In view of this practically constant tendency to early recurrence, furthermore, in the absence of

any reported cases well beyond three years, the method should never be used except in inoperable cases, or as a prophylactic after operation, as a possible, though not yet proven, means of avoiding recurrence. (5) The use of the X-ray as a preoperative measure in other than cutaneous cancer is contraindicated. (a) because the agent has not yet been proven to be curative; (b) because of serious risks of an extension of the disease to inaccessible glands or to other regions by metastases during the period required for a trial of the X-ray.

NOTES ON OTIC EPILEPSY.

B. Alex. Randall (American Journal of the Medical Sciences) considers that many of the epileptiform seizures attributed to ear troubles are of an hysterical nature. On the other hand, some cases seem to be relieved by ear treatment alone. The author reports the case of a boy of eight years of age, who had a drum ruptured and an inflammation of the middle ear set up by a sudden douche in the ear from a hose. He had epileptiform attacks as often as three or four times daily. They consisted of winking, rigidity of the back and limbs, with some twitching of the limbs, and apparent unconsciousness for a few seconds, after which he would go on playing as if nothing had happened. He had a polypus in the left auditory canal, caries of the ossicles, and later mastoid involvement. The ossicles were removed, and the mastoid drained. When the ear was healed the attacks decreased much in frequency and severity. At last report the child seemed to be entirely cured.

CAUSES OF FAILURE IN THE TREATMENT OF GONORRHEA.

Prof. Finger (Wiener klinische Rundschau): In an acute gonorrhea the inflammatory process begins near the meatus and gradually spreads backwards. The longer the process is undisturbed the firmer footing it gets. How, then, can an expectant treatment be justified?

The gonococci should be destroyed at once by the newer silver preparations. When the discharge has ceased, we are not able to determine that the disease has been eradicated from the deeper structures. Even after repeated microscopical examinations have failed to detect the presence of gonococci, injections should be made every eight hours, and at least before going to bed and arising in the morning to be on the safe side.

Exciting French novels keep the genital organs congested. The least harmful form of exercise is gentle walking.

Eighty to ninety per cent of the cases

which last longer than two to three weeks have an infection of the posterior urethra. If first and second glasses are cloudy, posterior urethritis is present. Many cases of so-called latent gonorrhea are caused by gonorrheal prostatitis.

Important to determine when posterior urethritis is present. If patient has no discharge as long as injection is used, but has one as soon as injection is stopped, then the posterior urethra has become infected.

WATER-DRINKING IN TYPHOID FEVER.

E. F. Cushing and T. W. Clarke (American Journal of the Medical Sciences) say that large quantities of water internally, a gallon or more in twenty-four hours, may easily be taken by typhoid fever patients, if administered in small quantities at frequent and definite intervals.

A copious elimination of watery urine at once follows, the degree of polyuria day by day closely corresponding to the quantity of fluid ingested.

Patients are more comfortable by this mode of treatment, and toxic nervous symptoms are lessened.

The mortality as well as the severity of typhoid fever seems to be still further diminished by this method of hydrotherapy employed as an accessory to the cool-bath treatment of the disease.

INFANTILE RECTAL GONORRHEA.

Fluegel (Beliner klin. Wochenschrift) finds in 56 cases of gonorrheal vulvovaginitis in infants that 20 per cent. were affected with gonorrhea of the rectum. The subjective symptoms in this condition are not marked. The infection usually results from the discharge of gonorrheal pus from the vagina. The treatment consists of suppositories of silver nitrate or ichthyol. The rectal secretion becomes free from gonococci before that of the vagina, as the mucous membrane of the rectum does not afford as favorable a medium for their growth as that of the vagina. In all cases of vulvovaginitis infantum it is advisable to look for a rectal infection.

LEAD POISONING.

Joseph Saller and John M. Speise (Journal of the American Medical Association) examined the gastric contents after test meals in twelve cases of lead poisoning, and report the findings. The stomach contents were tested for lactic acid, free HCl, and amount of pepsin present. In all cases a microscopic examination was made for the Oppler-Boas bacillus. Their conclusions are as follows:

(1) In a series of twelve cases of lead poisoning, or of suspected lead poisoning, deficiency in the secretion of HCl was noted in ten of the chronic cases, and was not observed in two, one of which was doubtful and the other acute. (2) This deficiency in the secretion of free HCl, in the majority of cases, is associated with an extreme reduction in the percentage of peptic digestion and with the presence of lactic acid. (3) It is not justifiable at present to regard it as an indication for treatment, at least not until the effects of the ordinary treatment for achylia gastrica in cases of lead poisoning have been tested. The authors have found no similar studies in the literature, which they consider rather remarkable in view of the pronounced gastric disturbance produced by lead poisoning.

THE TREATMENT OF NEURASTHENICS WITH HIGH ARTERIAL PRESSURE BY MEANS OF HIGH FREQUENCY CURRENTS.

Ugo Gay (Zeitschrift für Elektrotherapie, Breslau, Germany): Prof. Hurchard deserves the credit for having first proved that increased arterial pressure does not always indicate an anatomical alteration in the circulatory apparatus, but is often the sign of a simple functional disturbance, which slowly becomes the cause of material lesions of blood vessels. This occurs in different affections, notably neurasthenic conditions. Here the extraordinarily beneficial effect of high frequency currents is not known and appreciated.

The author has treated 12 such cases and comes to the following conclusions:

(1) High frequency currents of the auto-induction method increase metabolism in neurasthenics, thus producing a quick removal of poisonous substances from the blood and a lowering of blood pressure.

(2) Improvement of subjective symptoms goes hand in hand herewith.

(3) High frequency currents are to be recommended in the early treatment of arteriosclerosis.

INTRATRACHEAL INJECTIONS.

T. W. Gleitsman (Medical Record) gives a historic review of the development of this method of medication, which he considers deserves more attention than has been accorded it. Judgment in the selection of cases is necessary, however, and though the method is useful in alleviating the dry cough in the beginning stage of pulmonary tuberculosis, and may at a later stage favorably modify the putrid secretions in this disease, a cure is not to be expected from the procedure per se. In bronchiectasis the injections are almost

specific, and many but not all cases of asthma can be relieved in this way. Intratracheal injections are not to be recommended in acute inflammatory conditions, but they are most efficient in chronic tracheitis and bronchitis, while tracheal syphilis has been cured and fetid pulmonary gangrene has been favorably influenced. The vehicle should be a bland purified oil, to which may be added menthol in the proportion of 1 to 15 per cent., gualcol and creosote carbonate from 1 to 2 per cent., etc. The laryngeal mirror is essential to the proper introduction of the cannula, which is preferably made of hard rubber, and is used in connection with the Hartmann ear syringe holding an ounce.

FUNCTIONAL TEST OF THE DISEASED HEART.

M. Herz (Deutsch. med. Wochenschr.) The power of the heart to do its work may be tested as follows: The physician, allowing the patient's elbow to rest in his left hand, supports the wrist lightly with his right. The patient is then made to extend and flex the forearm as slowly as possible, doing practically no work except that necessitated by the effort to keep the forearm from moving more rapidly. The pulse is counted before and after the test. If the heart is normal there is practically no difference in the two pulse-rates, but the slightest morbid condition shows itself in a marked retardation of the heart's action as a result of the test. In obesity the test is positive when there is actual degeneration of the myocardium, but not when the interference with the heart's action is purely mechanical.

ANESTHETIZATION BY THE HIGH PRESSURE METHOD.

Engelken (Deutsche medizinische Wochenschrift) describes a plan of procedure intended to make thoracic operations possible without the dangers attending pneumothorax produced under ordinary conditions. Sauerbruch's method consists in the use of a pneumatic cabinet designed to contain the operating table, together with the surgeon and necessary assistants, etc., while the head of the patient passes into the outer air through a hole in the side of the cabinet. On exhausting the air in the cabinet to the necessary degree, collapse of the lung on opening the pleural cavities is avoided. The author has reversed this plan and rendered the performance of operations of this sort much simpler by having the patient's head and the anesthetizer enclosed in a small cabinet in which the atmospheric pressure is raised above the normal. The details of construction, including the highly ingenious sys-

any, even in the absence of any appreciable functional trouble, careful examination of the stomach for a possible gastric origin, should be made.

TUBERCULIN TEST IN CONSUMPTION.

It is often impossible to detect by means of physical examination, if a patient is suffering from incipient tuberculosis or if a formerly active process has passed into the latent stage. For such cases, E. Fischer (Correspondent, f. Schw. Aerzte) finds the tuberculin test invaluable. A patient may feel well and gain in weight and the physical signs may be insignificant, so that the physician is inclined to pronounce the case cured. Yet a rise of temperature may follow an injection of tuberculin which indicates that another course of helio treatment is in place. A cure is thus established on an exact scientific basis, and is no longer guess-work. In one apparently advanced case no reaction followed, so that the patient, who was hitherto regarded as a hopeless consumptive, could be definitely cured of his lung abscess.

THE VALUE OF THE ELECTRIC POTENTIAL IN ELECTRODIAGNOSIS.

A. G. Gramegnau (*Revista Critica di Clinica Medica*) discusses the best method of measuring electric excitability, and has experimented on patients to test this matter. He concludes that voltage is not the precise exponent of excitability, since it is subject to all the variations of the body resistance during an examination; milliamperes tend to increase, while volts tend to diminish. The electric excitability of nerve and muscle in man, expressed in milliamperes is the same whether used with high or low potential; intensity is the best measure of nervous and muscular excitability. The best methods for an electric examination are those which render the body resistance least. These are equal electrodes; the indifferent electrode placed on the palm of the hand or sole of the foot; fixed electrodes, with temperature and pressure maintained the same, and an interruptor in the circuit; instantaneous closure of the circuit; an aperiodic galvanometer, and the use of a relatively high initial potential.

THE LEUKOPENIA OF CACHEXIAL FEVER.

L. Rodgers (*British Medical Journal*) says that a very marked decrease in the leucocytes is always found in uncomplicated cases of cachexial fever, and when they number below 2,000 per centimeter this is al-

most diagnostic of the disease, but may rarely occur in true malarial cachexia.

In cachexial fever the white corpuscles are reduced to a greater degree than the red, so that the ratio falls below 1 to 1,000 in all uncomplicated progressive cases. This is rarely so in true malarial cachexia, while a reduction in the ratio to below 1 to 1,500 appears to be quite diagnostic of cachexial from Indian fevers.

The most marked degree of reduction of the leucocytes, and especially of the polynuclears, is of bad prognostic import, and vice versa.

Red marrow tablets are of great value in increasing the leucocytes, and this increase may take place during the continuance for months of intermittent fever, and be then followed by cessation of the fever and complete recovery.

High remittent fever is accompanied by progressive deterioration of the blood and general condition, but it may be often to a large extent reduced to the less injurious intermittent form by continued large doses of quinine, combined with red marrow. The best results yet reported have been obtained by those who carry out vigorous quinine treatment.

MEDICAL GLEANINGS.

Do not forget that the safety of the eye in syphilitic iritis depends mainly on the promptitude and efficiency with which atropin is employed.

Cactus is of value in tobacco heart. Another power possessed by this drug is generally ignored, and that is its influence in cases of subnormal temperature; the eclectics prize it highly in this connection.

In the early months of pregnancy examination should be made to determine that there is no retroversion or to treat it if it exists. A retroverted gravid uterus impacted in the curve of the sacrum always aborts.

The presence of sciatica demands a careful exploration of the pelvis by rectal or vaginal examination. It should also be remembered that Osler described sciatica as one of the early symptoms of cancer of the breast.

Wood alcohol is always and everywhere dangerous; and there is no warrant for its use or sale for purposes other than as fuel. The harm it works is generally irremediable.

The temptation should not be yielded to to incise a psoas, hip or other "cold" abscess, except in isolated instances and then only under the most rigid asepsis. The pro-

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ous. The college world is justly aroused over the brutality that has marked the game this season.

Dr. Lamoine recommends for the local treatment of rheumatism an ointment of one part of salicylic acid to five parts of vaselin; or an ointment made up of extract of belladonna, one part; salicylic acid, four parts; sodium salicylate four parts; and vaselin twenty-five parts. Ointments made up of ten, twenty-five, or fifty per cent, of ichthyol in lanolin are also of great service.

The will from a physiologic standpoint, Pershing says: "The essential effect of willing is to cause motion, and when we inspect our own minds we find that voluntary motion is always preceded by the idea of the motion. The ideas of motion are located in the kinesthetic centers in the posterior part of the Rolandic region, and are memories of the sensations caused by motion. The memory or idea of any particular motion is the cause of that motion being repeated."

Coleman states that the following drugs, when ingested, may cause the urine to reduce Fehling's solution and respond to some other tests for sugar: Acetanilid; arsenous acid, salicylic acid, dilute hydrocyanic acid, and sulphuric acid; alcohol, amyl nitrite, chloral, chloroform, copaiba, glycerin, mercury, morphine, strychnin, and turpentine.

The instruction of physicians in the Philippines is a decided necessity, declares the Medical Record. Some 2,000 to 3,000 physicians will be needed in these islands during the next twenty years. There is a unique opportunity for the establishment of the ideal university and affiliated professional schools; and there will be no lack of earnest, capable students.

The model physician should be the cleanest man in the community, physically and morally. His home life should be above reproach and an example to his clientele. As a representative of his profession, he should be well and neatly dressed. His income should be commensurate with the preparation involved and the sacrifices he must make if he is true to the traditions of his calling. So declares Dr. McCormack, of Johnston, Pennsylvania. All of these qualifications, and many more, the physician might command—except the last, in regard to which the fates much too often frustrate his hardest and most conscientious efforts.

English gives the following treatment for typhoid fever which he says will shorten the duration of the disease and decrease the mortality: He gives 10 or 20 or even 30 grains of calomel, followed in eight hours with one-half ounce magnesium sulphate. Diet consist of beef juice and albumen water.

(He is opposed to milk or toast.) His special treatment, however, consists of carbolated camphor—3 parts of gum camphor to 1 part of crystallized carbolic acid liquefied by heat. This is given in capsule of 10 to 12 drops, at first every two hours and less often as symptoms disappear or when cardiac depression occurs.

Parsons states that 80 per cent. of cases of prolapse of the uterus have yielded to the following treatment. A solution of sulphate of quinine in dilute sulphuric acid is made, 12 grains of the former to 30 grains of the latter, and 1 drachm of this is slowly instilled into each ligament. A pessary is then introduced and the patient is put to bed for one to two weeks. The treatment is painful at the time of injection and anaesthesia is advisable.

Dr. B. B. Ralph, of Kansas City, Mo., writes: Those of the medical profession who like myself, have been in the harness for two score years or more, can look back to the primitive methods and remedies used by us in our earlier days of practice, and then note the advantages we enjoy to-day in the way of modern therapeutic agents, and truthfully say that the advancement in the science of therapeutics and pharmaceuticals has been truly wonderful.

While it is true that we employ practically the same remedies, as in days gone by, or the active principles of the same drugs, yet thanks to the pharmaceutical chemist we are now enabled to prescribe them in a more agreeable form with all the inert matter eliminated and the desired constituent whose physiological action we wish to obtain remaining, and in the majority of preparations where that particular principle would be unpleasant to the palate, it is skillfully combined with aromatics, etc., that do not detract from its therapeutic value yet render it agreeable to take.

As an illustration I call your attention to a remedy that no doubt the majority of us have used in treating tuberculosis, phthisis, scrofula, chronic pectoral complaints, and all wasting diseases. I refer to cod liver oil. From my experience and observation I think it has been used with uniform success in those cases wherein the use of a remedy of its nature was indicated. The only objection to its use that has ever been advanced to my knowledge, was the fact that many sensitive stomachs could not tolerate it on account of the disagreeable taste and smell; but now, thanks to the advancement in therapeutics, those disagreeable features have been eliminated, and we now have in Hagee's cordial of cod liver oil compound, a preparation containing all the active principles of cod liver oil, yet so skillfully combined with aromatics, etc.,

that the most sensitive and delicate stomach will not rebel at its administration; and thus we are enabled to use this sovereign remedy wherever its use is indicated. I have had some excellent results from its administration in cases of brain exhaustion and nervous debility, while in chronic pectoral complaints and wasting diseases, and

wherever an alternative and reconstructive tonic was needed, the above combination was my chief anchor.

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Professor of Materia Medica and Therapeutics at Kings College, London. Fifth Edition. Revised and
Edited by Robert C. Kenner, A. M., M. D. Page 41—

CALICOLO.—This remedy has been termed "the positive treatment of consumption." So because the remedy exerts a positively beneficial effect on patients in all stages of the tuberculous process. The remedy is free from morphine or opiates, chloral or any narcotic whatever. It speedily overcomes the cough of these unhappy patients and sputum will show changes in a few days. The patient on Calicolo will not only find relief of symptoms, but the morbid process in the lungs is materially hindered and the most happy results follow the employment of the remedy if it is employed long enough to exert its influence.

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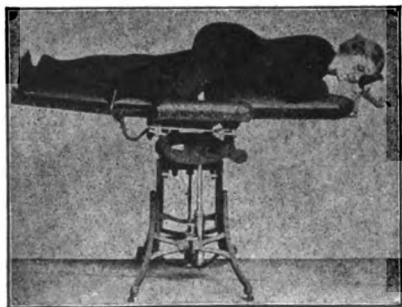
The treatment has a well-balanced action. By this we mean that it benefits the patient in every way. It enables him to eat and digest his food and to sleep. This, in the very nature of things, makes the treatment one which can, with correctness, be determined a positive one. Prof. Osler says that the improvement of the patient's nutrition is the key to the cure of consumption. If this is done, the lung disease may be left alone. It can be safely left alone, because the disease can not flourish where the general system is in such a high state of nutrition.

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ORIGINAL.

MODERN VIEWS OF DIGESTION.

By David Paulson, M. D., Superintendent
Hinsdale (Ill.) Sanitarium.

There is a quartet of scientists whose recent thoroughgoing researches and painstaking observations have given us almost entirely new views of the digestive process. Prof. Chittenden of Yale has given us a new standard of the quantities of food needed to nourish and sustain the human body. Mr. Horace Fletcher has shown conclusively that thorough mastication enables us to appropriate to a much larger extent than was formerly supposed the nutriment contained in a given amount of food. The observations of Prof. Cannon of Harvard reveals to us the mechanical operations of the gastro-intestinal tract, never known before; and the magnificent researches and experiments of Prof. Pawlow, of Russia, have unfolded to us the functional or secretive side of digestion in a most beautiful and fascinating manner.

Although these four men have attacked this question from entirely different standpoints, yet each has finally touched the same tap root of the various digestive problems.

Prof. Cannon experimented on cats which he fed with fish, bread and other food substances mixed with sufficient bismuth powder to make the food mass cast a dark shadow when viewed under the X-ray fluoroscope, thus enabling the movements of the stomach and the intestine to be seen plainly and under absolutely normal conditions, something which has never before been done by previous observers. The reports of what Cannon observed during digestion make it necessary to rewrite entirely that portion of the chapters devoted to the movements of the stomach and intestines in the standard physiologies.

Within five minutes after the cat had finished a meal of bread there was noticed a slight contraction in the pyloric portion of the stomach, traveling toward the pylorus. Several minutes later these contractions be-

gan to appear nearer the middle of the stomach, each one traveling toward the pyloric end. The waves recurred about every ten seconds or about three hundred and sixty an hour and required about thirty seconds to travel the distance. In about fifteen minutes one of the constrictions began to squirt the food through the pylorus, and as digestion proceeded the constrictions became further and further back, the circular fibers pressing the fundus into more and more of a tube shape. Then the longitudinal fibers begun to contract thus forcing more and more of the food into the pyloric end. The stomach was thus found to virtually consist of a busy pyloric end over which continually passes rhythmically constriction waves, and a cardiac portion in which the food remains for an hour or more practically undisturbed, thus giving the saliva an admirable opportunity to continue to transform the starch into various forms of sugar.

In both the cat and the dog, Cannon found the contents of the cardiac end to be alkaline at the end an hour and a half, then it contained twice as much sugar as the pyloric portion. It must, of course, be self evident that if food is improperly masticated and insalivated and then washed down with fluids, this quiescent period in the cardiac end would furnish a splendid opportunity for microbic activity instead of starch digestion as there would be no hydrochloric acid to inhibit germ activity.

Prof. Cannon succeeded in having the cat swallow some bismuth pellets. When these reached the pylorus not only did it remain closed but in one case it only opened seven times in the following twenty minutes. At another time all the food was delayed in the stomach for about thirty minutes. This is certainly another powerful argument in favor of Mr. Horace Fletcher's contention for more thorough mastication.

When the cat became angry, excited or struggled to free itself, there was a total suspension of all these movements of the stomach. The same observation has been repeatedly made while making similar experiments in the Battle Creek Sanitarium Laboratory of Hygiene. The stomach movements were not resumed until the cat was petted and again began to purr.

Prof. Pawlow found that when his dogs were teased and annoyed there was little or no gastric juice secreted. Both observations teach the tremendous influence that psychic impressions have over gastric digestion. In Holy Writ we are told that the early disciples "ate their bread with gladness;" it is certainly to be deplored that there are not more of the later disciples who do likewise for there are abundant physiological reasons for "rejoicing always" at meal time and not becoming angry, at least immediately afterwards.

In the intestines instead of the food mass being pushed progressively onward by peristaltic waves as we have been taught to believe, Cannon observed simultaneous rhythmic segmentations producing bulging between each constriction. The next movement, each of these little segments were halved, as it were, and there was a bulging where there were formerly constrictions. There are about thirty of these segmentation movements every minute and this may go on without any onward movement of the food mass for about half an hour, so that each particle of food is subject to a thousand movements which occur as regularly as if they were run by machinery without particularly changing its position in the intestines. This not only insures a thorough mixing of the digestive juices but it also brings every part of the food mass again and again in contact with the absorbents. Then all at once the segmentation movements cease entirely. The peristaltic wave follows which passes the food on a short distance and then this same segmentation process begins again for another thousand times and thus the process proceeds patiently and rhythmically until the food mass finally reaches the colon. It is a most beautiful and fascinating sight and one can hardly refrain from saying with the writer of old, "I will praise Thee, for I am fearfully and wonderfully made."

It was found that when the cat struggled to get away or whined all these movements ceased until it became in a good state of mind again. Some parents make it a special point to discipline their children at meal time. This is a wicked practice, not only morally but physically. In this we also get a glimpse of some of the real things in mind cure. Undoubtedly many a man feels continually as the cat did when it was ugly; finally some one persuades him to unload the ghost of ill nature that he has been carrying around in his mind; at once the stomach begins to act more normally and the digestive juice which has been held in abeyance begins to be secreted and naturally his nutrition is improved, and of course he thinks that he was cured by Christian science while it was only what Christian sense would have accomplished for him at any time.

Pawlow's work has taught us the importance of cultivating a normal appetite. Many, living under the strain and pressure of our modern civilization, eat their meals with absolute indifference. If they are asked whether they enjoyed their food or not perhaps they will tell you they did not even stop to think about it. Such systematic inattention eventually develops digestive disturbances and a depraved appetite which has to be goaded with mustard, pepper, and various other fiery spices and unnatural stimulants; on the other hand it is important for the physician not to overlook each individual's peculiarities in respect to taste. Pawlow says that the golden rule in dietetics is to give no instruction in regard to diet until the patient's inclinations and habits are understood. Unless we are guarded in this respect we are very likely to prescribe for our patients that which we like rather than what they like. If we discover that they naturally like those things which are clearly detrimental to them, then we must endeavor to convert their tastes so that they will ultimately love that which is good dietetically and hate that which is evil.

Pawlow, being one of the greatest living surgeons, succeeded in performing some very ingenious experiments. By a longitudinal incision in the lower part of the stomach, a small stomach was made whose cavity was entirely separated from the large stomach and with an opening out through the abdominal wall. He also made an opening into the esophagus so that when the dog ate food it was swallowed out through this opening instead of going into the stomach. He then made the interesting discovery that five minutes after the dogs began to eat food which they relished, although it was swallowed out through this opening a rich gastric juice began to be poured into the stomach, but when they were given food which they did not relish little or no gastric juice was poured out. This emphasizes the importance of an appetite and that mastication and the swallowing of food do not necessarily mean stimulation of the gastric secretion—it requires in addition genuine desire for food.

This throws some light upon the value of the "no breakfast" idea for some people. For those who habitually eat late at night and awaken in the morning with a coated tongue and no desire for food, eating a breakfast for which they have no appetite will encourage fermentation and the formation of toxins. When such an individual goes without breakfast perhaps by dinner time he is actually hungry and thus he has no difficulty in digesting his dinner, and he soon experiences a corresponding improvement in his health, but suppose on the other hand, some lean, half-starved dyspeptic who is perhaps hungry as soon as he

wakens in the morning is persuaded to go without breakfast; by noon he is perhaps so faint that he can not digest his dinner at all. This shows that there are two sides to the "no breakfast" idea. One class will be benefited while another will just as truly receive harm from omitting breakfast.

The simultaneous excitation of sight, hearing, smell and taste all serve to promote gastric activity. It was found that the dogs would begin to secrete gastric juice five minutes after seeing food of which they were passionately fond. This is undoubtedly just as true in the human being, so if a tray is brought to a patient with a soiled napkin, coffee spilled into the dessert, and stained dishes, very likely after seeing it he will say, "I have no appetite, take it away," while if the tray is reset properly and perhaps garnished with a sprig of parsley or some dainty decoration and then returned to the invalid, he will readily accept it and his digestive glands will begin to secrete juice before he has fairly begun to eat. When we fully appreciate the importance of this psychic element we will recognize that we must have not only wholesome and palatable but dainty cookery and that the table service and the environment must be pleasing and agreeable to the patient.

Pawlow put three ounces of meat directly into the dog's small stomach through the artificial opening in the abdomen. In an hour and a half he took it out and only one-half ounce was digested. He repeated the experiment and at the same time fed the dog some food which he relished, which was, however, swallowed out through the esophageal opening and during the same length of time as the previous experiment five times as much meat was digested. This represents in a practical and forcible manner the difference between eating food that tastes good and swallowing food without tasting it which is almost invariably the case when food is eaten in a hurried manner without thorough mastication.

The pancreatic juice responds to psychic influences in much the same way as the stomach. These experiments suggest the advisability of beginning the meal with something that is particularly palatable in order to influence the secretion of a strong digestive juice, and to finish the meal, provided it does not lead to overeating, with some tasty dessert, as this will stimulate the pouring out of a rich gastric juice at the conclusion of the meal.

Pawlow's experiment showed that a somewhat different digestive juice is produced for each particular kind of food. This emphasizes the need of simplicity with each meal with occasional changes from meal to meal as novelty is an important stimulant to digestion. Among the many other important observations that Pawlow made

was the fact that fat tends to inhibit the secretion of gastric juice thus furnishing us the reason for the well-known fact that fatty foods are badly borne by those suffering with hypopepsia, while on the other hand fat is indicated in cases of hyperhydrochloridia. Practical experience has shown that a liberal allowance of butter, cream and vegetable fats is a far more rational therapeutic agent than a continued use of alkalies and other drugs to neutralize the excessive acidity. A number of other practical hints which can be derived from the work of this great investigator will be reserved for a future article.

PNEUMONIA. REPORT OF A CASE.

By S. N. Metzler, M. D., Indianapolis, Ind.,

Our baby boy, seven months old, was taken down with pneumonia February 5, 1883. The left lung was first affected and subsequently the right. He suffered about four weeks previous to this attack with a severe catarrhal affection. He seemed to be playful during the day, but very restless all through the night. The first three days the fever was very high; at the end of the third day it seemed to go off suddenly when he seemed to be much prostrated, countenance of a bluish or ash color. On the fourth day he rallied and looked quite bright until eight in the evening when he was seized with severe paroxysms of pain in the lower portion of the lungs which lasted until five the next morning. Soon after the pain commenced fever again showed itself, with great thirst. From about half past five until eight he rested quite well at which time a sudden change seemed to take place; he lay perfectly motionless except the muscles of the extremities which would twitch, the eyes wide open and staring with pupils largely dilated. He lay in this condition three hours and a half. After applying mustard to the palms of the hands and soles of the feet and administering stimulants he became conscious. Two hours later he had another attack which lasted one-half hour. The attacks were then repeated every two hours for six hours but each attack growing less severe. Similar attacks were warded off by giving stimulants during the next twelve hours. At the end of this time a rapid swelling made its appearance which extended over the upper portion of each lung and extending from ear to ear, all of which took place within an hour after its first appearance. It remained in this condition for three days when it took another course to the parotid gland on the right side, thence creeping slowly to the top of the head, remaining here for three days, forming a tumor the size of a goose egg. I at this time

made an incision over the upper portion of the right lung and a bloody serum oozed from this until the swelling had completely disappeared excepting a small place on the top of the head in front of the anterior fontanelle. By placing a finger on this point fluctuation could be felt very distinctly. I might add that the amount of matter reaching the top of the child's head was approximately eight ounces, and the spasms he had been having at regular intervals soon disappeared after the operation.

The disease now assumed an intermittent type; the fever recurring every alternate day as also did the paroxysms of coughing, the cough, however, being comparatively loose and more like that we hear in bronchitis. We kept the wound open until the matter had entirely run out. The cough now practically disappeared except a little dry hack which stayed with him for over three years, until he had whooping cough, at which time the cough entirely disappeared. He is now a hearty young man in his twenty-fourth year. And it happens that he is our only son. I might also state that we gave principally, as nourishment, the yolk of egg whipped with cream and a few drops of brandy. The little emaciated fellow took this with great relish soon after the operation. By the way, just remember this little food prescription, it will serve you a good purpose any time you may have a weak and debilitated patient. I have used it more than a hundred times in my practice.

In regard to the general treatment of this case, it was purely symptomatic. As far as I have been able to investigate this is the only case of the kind in the world where the patient has lived through the ordeal. I have found cases where the matter extended through the muscles of the chest, but they all died before it reached the top of the head as in this case.

I should have stated that we had a council of three physicians early in the case and all pronounced it hopeless. But just then I threw off my coat and went to work and stayed right with the case night and day for three weeks. By so doing I lost several hundred dollars worth of practice, but I saved my boy who was worth more to me than all my practice.

THE TREATMENT OF WOUNDS.

By Dr. C. A. Gorse, Meadowbrook, Orange County, N. Y.

Since the beginning of time wounds have been among the commonest of occurrences. It has ever been one of the chief occupations of men to bruise and cut and shoot one another. In all the handicrafts in which edged tools are used people are continually

hurting themselves; and in these days of multiplied machinery and of rapid travel the number of accidents has been proportionately increased. In the life of a busy practitioner there is scarcely a day in which he is not called upon to treat a wound of some kind or other. Besides those which come to him immediately, there are many cases in which home remedies have been tried first, and when it is found that the injury is not healing well under these treatments the physician is consulted.

The subject of this paper is an extremely broad one, and to treat it fully would require a large volume. We will, therefore, confine our attention to the comparatively slight wounds such as are commonly met with; the bruises and cuts and lacerations which occur in the course of every day life, and which do not penetrate either into the abdominal, the pleural, the pericardial nor the cranial cavity.

The history of the treatment of such injuries would involve a large part of the history of surgery and of medicine. Innumerable substances have been applied in such cases; the list embraces many which are positively harmful, some that are disgusting, some that are merely useless, and a few that are beneficial.

Even in these comparatively enlightened times it is only too common to have a patient come to us with a cut over which a spider's web has been placed to stop the bleeding. Well, it generally does stop the bleeding, but one could hardly devise a better method of infecting the wound.

In contradistinction to this and many other equally barbarous procedures in common use, there are some domestic remedies which are really very good. The bit of rag soaked in turpentine is an excellent dressing for slight cuts, although it is rather painful. In the Bible parable of the Good Samaritan you recollect that he poured oil and wine into the wounds of the man he found lying by the roadside. This is very good treatment indeed, the alcohol being an efficient antiseptic and the oil preventing the cut surfaces from drying and stiffening.

From time immemorial, various gums and resins have enjoyed a great reputation as vulneraries, and deservedly so. A great many of the gums and balsams, even in the crude state, exert a powerful bactericidal action, and the mere application of some of these substances will often give results which put to shame the best efforts of so-called advanced surgery. We once saw a man with a laceration on the back of his decidedly soiled hand to which he had bound a black, dirty looking mass of what he said was crude gum copaiba. This had been placed there two days before he applied for treatment. On removing this dressing not a drop of pus was to be seen, and there was

no sign of inflammation. We replaced the dressing just as we found it and bound it up, acknowledging that we had nothing better to offer.

Among sailors and lumbermen the great remedy for cuts and lacerations is the compound tincture of benzoin, or Friar's balsam, as they call it; the balsamic resins which it contains are the active principles.

The balsam of Peru is similar in action, an active germicide, and a stimulant to granulation.

Of late years chemists have searched through the whole of the vegetable kingdom for balsams, resins and oleoresins, and many valuable ones have been found; some of which are not so irritating and painful as the preparations above mentioned. It is a good rule to try all new combinations of this class that are offered; for, occasionally, we come across a really useful article.

This reminds us of a case we had last year. The patient was a young married woman, the daughter of the foreman of a mill. One of the mill hands who had previously boarded with the foreman had been discharged, presumably for good cause; but he conceived the idea that it was the influence of the daughter which had prejudiced the foreman against him. One night, being under the influence of liquor, this man called at the house and persuaded the young woman to come out on the front porch, saying that he had something of importance to tell her. As soon as she stepped out of the door he seized her about the head and neck and attempted to cut her throat with a razor. She partially evaded the blow, but received a gash down the side of her neck. It was about eight inches long, and penetrated very near to the carotid artery and jugular vein. Several stitches were necessary to close the wound. For a dressing a strip of absorbent cotton saturated with Ethol, a balsamic preparation, was used, and it was left undisturbed for several days. When we thought it time to take out the stitches we were surprised to find that the wound was entirely well; there was not a drop of pus, not even in the stitch holes, although some of the stitches, and one especially, were quite deep.

Unlike some other drugs of this class Ethol may be safely given internally, in doses of one drachm four or more times a day. It is taken up by the blood and hunts out invading bacteria wherever they are to be found. In typhoid fever, dysentery, small-pox and other infectious diseases its internal administration has been found very helpful; and as an adjuvant to local measures, can be given with benefit in boils, carbuncles and other skin diseases which are characterized by the formation of pus.

When a wound has already begun to suppurate before it is first seen by the surgeon,

it is usually better to apply for a few days a dressing wet with some antiseptic solution, such as very dilute bichloride; and later use some balsam preparation to aid in the granulation.

This brings us to the question of the closure of wounds. Each one must be considered upon its own merits. As a rule, we may say that if a wound is deep and gaps widely it must be closed with stitches. If it is shallow, a few transverse strips of adhesive plaster are much better. A narrow strip of gauze saturated with whatever drug is to be used is placed on the wound, the lips of which are held together by pressure of the hands on both sides. Then a strip of plaster is attached to first one side, traction is made on it, and it is applied to the opposite side. This is especially useful in infected wounds, for the whole field can always be readily opened and cleansed.

THE EARLY DIAGNOSIS OF CONSUMPTION.*

By Russell J. C. Strong, M. D., Beloit, Wis.

There is no one pathognomonic sign of incipient tuberculosis, but a close and careful investigation of constitutional and local manifestations will often give a positive diagnosis. The one thing necessary is to consider a number of symptoms, knowing that the presence of a few of them in the same individual must be considered evidence of the disease. Many of these early symptoms seem of slight significance and only careful attention will lead to their recognition. During the true incipency of the malady—anatomically characterized by the formation of a few isolated tubercles in lymph glands or in lung tissue—no symptom or only vague general symptoms exist, and none on which to base a positive diagnosis of the disease.

Tuberculosis is most likely to occur in those under weight, those lacking in normal thoracic development and normal respiratory power. If such individuals have been exposed to contagion from tuberculosis—if they exhibit beginning loss of weight together with heightened temperature and pulse rate in the afternoon or evening, with or without persistent dry cough and even without the presence of tubercle bacilli in the sputum—we can not offer a negative diagnosis. Always carefully investigate the history of a patient as to tuberculosis in the family or among intimates, as to unhygienic mode of life, dusty and confining occupations, and the like.

Disturbance of the pulse and tempera-

* Read before the Central Wisconsin Medical Society, Madison.

† Wisconsin Medical Journal.

ture, usually well balanced functions, is necessary for the diagnosis of an active tuberculous process. The morning pulse and temperature are usually unchanged in the early stages of the disease, although, occasionally, there is a slightly subnormal temperature. Excessive mental or physical exercise increases the temperature and pulse ratio in excess of that produced in a healthy individual. In some patients it will be found that the pulse shows this disturbance only after exercise and that the temperature is elevated only at the time the patient is tired or after exercise, or at such periods of physical stress as before and during menstruation.

Fever is the most constant symptom of beginning lung disease and may precede cough and expectoration for weeks or months. An increase of one-fifth to one degree in temperature is usually to be noted after midday. When tubercles are confined to one lobe or portion of a lobe it rarely exceeds 100.5 degrees. Elevation usually begins toward evening and the ascent is very gradual, but a hearty meal and physical or mental exercise may temporarily increase it and may also cause it to begin earlier. The maximum may be reached in three or four hours and the decline may be rapid or gradual; as a rule the temperature is again normal at bedtime. More rapid rises and higher degrees are readily induced by physical exertion or mental application, as by playing cards, a social evening, a heavy meal, or a slight attack of indigestion. Absolute rest in bed reduces the ordinary maxima. In many cases the whole period of elevation comes within a few hours and the entire rise is less than one degree Fahrenheit. This so-called eruptive fever stops entirely when, after a period of from several weeks to as many months the reactive inflammatory changes peripheral to the tubercles have subsided. Recurrence of the fever may indicate a new eruption of tubercles or the beginning softening of a caseous focus.

Chilly sensations are not so uniformly present in the eruptive stage; usually they are indicative of destructive processes or suppuration. There may be only a little shiver, a "goose-skin" sensation, the hands or feet get cold, or perhaps the finger nails turn blue, but we always find these sensations to correspond to the beginning rise of temperature.

A small rapid pulse is an important and a common symptom in the course of pulmonary tuberculosis and may precede the advent of fever and cough. Though at times present in the early stage it is more frequently observed as the disease progresses. An increase of ten to thirty beats of the heart is usual after midday—the pulse being weaker or softer than normal. In the earlier

periods the condition may become apparent only toward the close of the day or on even slight exertion.

Among the early symptoms may be a slight hacking cough unexplained by any evidence of elongated uvula or tonsillar or faucial irritation. This may not be present. The truly early stage cough corresponds to the first formation of tubercles in the lungs. Cough is most frequently produced by irritation of the sensitive mucous membrane of the respiratory tract. This irritation may be due to the formation of tubercles, acrid or excessive secretions, ulcerations of the mucous membrane, congestion of the bronchial mucous membrane, or inhalation of irritants. The minute centers of inflammation induce catarrh of varying degree. When with deep inspiration the alveoli are rapidly distended and again emptied, the catarrhal secretions present may thereby be caused to enter the bronchioles and thus cause cough, the occurrence of which under such circumstances may be suggestive, if not diagnostic, of tubercular lung disease. If the alveolar catarrh extends to the bronchioles or if the mucous membrane of the latter is the seat of tubercle formation, more constant cough will naturally result. In all these cases, however, in which the alveolar catarrh is slight and the secretions are not sufficient to enter the bronchioles, there is no cough in the truly early stage and in such a tubercular deposit may form, become limited, latent, encapsulated, and may heal, without the patient having either cough or expectoration or experiencing any other symptoms referable to the lungs.

Expectoration can hardly be claimed as a symptom belonging to the truly early stage of pulmonary tuberculosis. Like the cough, expectoration is either absent or insignificant in the stage of tubercle formation and its more marked appearance coincides, as a rule, with the beginning of destructive changes in the lung.

Careful questioning will usually elicit the occurrence of sweating, often at night, varying in appearance and amount. Possibly these "night sweats" are of an earlier appearance than we appreciate and in the great majority of cases are so slight as to be unnoticed or their significance overlooked by the patient. Night sweats, at times one of the earliest clinical manifestations of the disease, belong usually to that period when destructive changes are initiated or in progress and they are then associated with hectic fever. Night sweats appear to indicate the absorption of dead disintegrated tissues, exudates, pus, etc.—are not pathognomonic of pulmonary tuberculosis and may occur in the convalescence from acute diseases, in malaria, with septic processes, and with exhaustion from suppuration in any part. Except in acute miliary tuberculosis,

In truly septic cases, and in acute phthisis, phthisical patients rarely sweat while awake. The sweat in phthisis contains nothing characteristic, and the claims of its containing tubercle bacilli or specific toxins were never substantiated.

Hemoptysis, a symptom of fairly frequent occurrence, in the absence of the causes, is one of the greatest signs. Apart from the admixture of blood with the sputum, the expectoration of pure blood may be the first symptom of pulmonary phthisis. Its occurrence often coincides with some unusual physical exertion. In many cases the patient has enjoyed perfect health prior to its occurrence. The so-called initial hemorrhages are, as a rule, slight or moderate and vary from one or a few mouthfuls to four or six ounces.

Tubercle bacilli and elastic fibres in the sputum always indicate an open ulcer or a cavity even though we fail to confirm it by physical examination—it means destruction of tissue and not a pathological period in its incipency. The tubercle bacillus in the sputum is of indisputable accuracy. It appears only after the caseation and breaking down of a tubercle near a bronchus or a bronchioles—therefore it is certain that tuberculous changes have occurred previous to the appearance of the bacillus in the sputum. This is borne out by the clinical observation of a recognizable stage of tuberculous lung involvement before bacilli are found in the sputum. The clinician who waits until he can clinch his diagnosis of tuberculosis by the sputum test has lost the most valuable weeks or months in the whole history of the disease and nearly half his chances of a cure. While inability to demonstrate the presence of bacilli in the sputum does not necessarily negative the existence of tuberculosis, their presence demonstrates it conclusively.

By the febrile reaction from small doses of tuberculin we can diagnose early tuberculosis. Those experienced in its use and only those are able to confirm their clinical diagnoses by its use in the initial stage or at least in the very early stages. Those unfamiliar with it derive little or no benefit whatever from its use either remedially or for diagnostic purposes. Practically all those who see many tuberculous patients at sanatoriums are agreed that, in some cases, a positive diagnosis can be reached only by the use of tuberculin. Koch, in 3,000 cases, claims positive results in diagnosis in 99 per cent. In his experience they must be apyretic and uncomplicated cases. The use of tuberculin necessitates great care in its application and a complicated apparatus. The tuberculin test may properly be employed in suspicious cases of recent development, in which only indefinite conclusions can be reached by other means.

Tuberculin is a specific irritant to both the tubercular focus and the susceptible individual. The tuberculous foci are rendered hyperemic and give up large quantities of toxins which, entering the blood, cause the reaction. Violent or oft repeated reactions may weaken an organism in the advanced stage of the disease. There is no proof that the injection of tuberculin is prejudicial in incipient cases. Careful application of the tuberculin test will do no harm to the tubercular subject and probably will have no influence of any sort upon the present or future health of those who are free from the disease. The question as to the absolute reliability of the test is not finally settled. There will be occasional failures in medical as well as in veterinary practice. Syphilis, actinomycosis, and leprosy are said to give reactions to tuberculin.

It is a common experience that pulmonary tuberculosis may exist in a latent form for months and years, during which the patient may enjoy entire freedom from symptoms. However, this latent deposit may become active, signaling, as a rule, the initiation of softening. When such softening is caseous tubercle is not extensive—with its final outward discharge, the symptoms may again subside; the patient improves, grows stronger, and increases in weight—cough and expectoration as well as fever diminish and may entirely disappear; but we would not feel ourselves justified if we called such a patient even "apparently cured." How shall we know this latent disease which is liable to become active and even to threaten life? In all such cases we can obtain, as a rule, quite satisfactory and trustworthy evidence by a properly applied tuberculin test.

Chief among corroborative disturbances is probably a slowly progressing anorexia, irregular in type, with persistently coated tongue and progressive loss in body weight—due to lessened food ingestion with metabolic and assimilative changes. The most common cause of anorexia is fever if coincident with the hours for meals. Progressive loss of weight, however it may be induced, is always a symptom demanding our greatest attention. There may be early hoarseness or a condition resembling chlorosis or neurasthenia, bronchitis or dyspepsia.

A peculiar pallor, a pseudo-anemia, is often present—due to a vasomotor disturbance of the peripheral vessels, for repeated counts evidence conclusively that this is not due to diminution of the red blood-corpuscles, leucocytes, or hemoglobin, these elements remaining close to normal percentages until influenced by the profound disturbances of the later stages in which we observe a true anemia.

Among other symptoms occurring with infrequent regularity may be noted (a) pleuritic pains beneath the scapulae or about the

upper part of the chest, (b) repeated chilly sensations, (c) flushing of heat, (d) fleeting neuralgic or rheumatic pains in various portions of the body, (e) the "glistening" appearance of the eyes, (f) the "hectic" flush often apparent in the cheeks, (g) prolongation of the expiratory act, (h) altered vocal resonance, (i) inability to inspire deeply without inducing cough, (k) a subjective sensation of resonance when talking, (l) a widely dilated state of both pupils—not a paralyzed pupil—due to some irritation in the cilio-spinal region or perhaps an irritation of the sympathetic brought about by some blood change associated with very early tubercular infection and not yet fully recognized. These vague symptoms assume diagnostic value only when considered together with the results of a careful physical examination.

Labbe states that the great majority of women twenty to thirty years of age who come to his clinic with pulmonary tuberculosis have had a decided history of anemia which may or may not have disappeared before the tuberculous manifestations. He thinks these patients have a larval state of consumption—astate existing before the appearance of the bacillus. Such a condition is manifest, often, merely as a neurasthenia, polyarthritis, asthma, bronchitis, etc. Many of Labbe's patients come to his clinic as chlorotics with pulmonary lesions that are improving. It would seem as if chlorosis was often simply a manifestation of arrested pulmonary consumption or, frankly, a symptom of tuberculosis—a mask that tuberculosis assumes at the epoch of puberty in the female. Of all the causes of anemia likely to give rise to an apparent chlorosis none is more important or more frequent than tuberculosis.

The symptoms on the part of the nervous system are chiefly due to the decline in general health and vigor and in the earlier stages, when the nutrition and blood state are good, patients suffering from pulmonary tuberculosis have no special nervous symptoms that are attributable to their disease.

The sleep is usually undisturbed except through fever, cough, night sweats, or other complications which are painful and prevent sleep on that account.

The urine in the early stages is usually normal in quantity and quality with only such changes as we observe in other diseases that are attended by fever, gastro-intestinal complications, loss of weight, etc.

Excluding the true tuberculosis lesions which are extremely rare complications in phthisis, the skin and its appendages present no important symptoms.

The physical examination of the chest by inspection, palpation, percussion, and auscultation—carefully done—offers most direct evidence. Remember the advantage in

a physical examination of (a) removing all clothing to the waist for accuracy in percussion or auscultation, (b) the advantage of open-mouth breathing during percussion or auscultation, (c) the advantage of forced inspiration and expiration during the examination of suspicious areas, (d) the absolute necessity of an examination of the sputum in all suspicious cases.

By inspection we find conditions of stature and physical development indicating a predisposition to the disease. Length and weight of body, circumference and expansion of chest—by correlation—show the bodily condition and the state of nutrition. The classical "habitus phthisicus" or paralytic thorax is not often found. A retardation of the respiratory movements over the affected portion of the lung may be observed, especially over one apex—the more pronounced the more recent the involvement of the lung portion. Foci of greater extent diminish the excursion of the diaphragm of the affected side—demonstrable by the fluorescent screen or equally well by Litten's shadow.

Painstaking percussion of the chest, comparing the two sides, is of the greatest value. Marked dullness is rarely found. Percussion will sometimes elicit a significant retraction of one apex as compared with the other. Even the most expert diagnostician must realize that only when the pathological alterations are near enough to the surface can he expect to obtain evidence of their existence by percussion or auscultation. If the formation of tubercles in the lung is peripheral or approaching the pleural surface, and is of recent date or just occurring, the recognition of such a process by auscultation is one of the most delicate tasks in physical diagnosis, and percussion, especially when not forcible, is of no avail at this period.

Painstaking auscultation of the chest, comparing the two sides, is of the greatest value. Examine particularly with the stethoscope the upper portion of the lungs, also the lower borders and the axillary regions—also the lingula over the heart dullness. Many of the signs are subject to considerable variation. Rales easily discoverable in the morning may regularly be absent in the afternoon. They may be found on damp and rainy days when absent in dryer weather. In women pulmonary signs are accentuated at the time of menstruation. In the recently involved area the inspiratory murmur is either weakened or it is more or less rough, sometimes both, and it may sometimes be interrupted, but the prolongation of the expiratory murmur is as yet absent. One who is not thoroughly practiced is very apt to disregard this weakened or rough quality in the inspiratory murmur and to acquire the ability to recognize it we must

first get a physiological standard by persistent practice upon healthy subjects. The rough murmur is produced by slight inflammatory changes in the bronchioles—the air passing over the uneven surface and through a slightly narrowed lumen. It is principally audible during inspiration over the apices and below the clavicles. This murmur precedes the rales (not the case, as a rule, with the puerile murmur) and this is the earliest auscultatory manifestation of consumption. The appearance of rales over the apices (also in the axillary region) is next to it in importance. In the earlier stages there are usually fine crackling rales which can often be heard only directly after the patient has coughed. The rough murmur must not be confounded with the sharp (puerile) respiratory murmur which is more a sign of increased function than of swelling of the mucosa—both are vesicular murmurs. The rough character is produced by a succession of sounds following each other too rapidly for aural differentiation—the respiratory sound loses its smooth character and becomes impure and roughened. If the succession be less rapid, we speak of an interrupted respiratory murmur which suggest much coarser changes. When these adventitious sounds become audible besides the vesicular murmur, we speak of rales. Rales indicate catarrhal conditions—with them the intensity of the vesicular murmur is usually diminished; this is also produced by the more pronounced swelling of the bronchial mucosa. If one or several interruptions during inspiration correspond to the area where the murmur is weak or rough, it is a corroboration that the lung is structurally altered. Very often but not always the skilled auscultator can recognize an incipient case before tubercle bacilli appear in the sputum.

Pleuritic friction is often heard at an early stage—most frequently in or near the axillary line between the sixth and eighth ribs.

Chronic bronchitis, chronic bronchopneumonia, and the interstitial pneumonias, require differentiation, usually, from the advanced stages of tuberculosis. Chronic bronchitis caused by the inhalation of dust when interrupted by acute bronchopneumonia may show consolidation, fever, emaciation, and cough, but the tubercle bacillus is never found in the sputum. Chronic interstitial pneumonia of an upper lobe with bronchiectatic cavities has, at times, severe hemorrhage, emaciation, pallor, and cyanosis, but tubercle bacilli are never found in the sputum.

Pleuritic exudates, by pressure on the lung, may cause rales at the apex but tubercle bacilli can not be demonstrated in the sputum.

Sarcoma, carcinoma, lymphoma, of pleu-

ral sac or mediastinum—also actinomycosis and echinococcus of the lung—may all give rise to violent hemorrhage with chest symptoms, pallor, and emaciation. The absence of high fever, absence of the Diazo-reaction, with presence in sputum of bits of tumor or actinomycosis grains or portions of echinococcus sacs, point the way. Tubercle bacilli are never found. The physical evidence of actinomycosis, echinococcus of the lung, and tumors of the chest including aneurism—is usually not confined to the upper lobe. Actinomycosis, alone of these, may react to tuberculin.

Aortic aneurism may show cachexia, cough, hoarseness, and bloody expectoration with symptoms of consolidation, but there is no fever and no tubercle bacilli.

Valvular affections of the heart with which there are pulmonary infarctions, brown induration, or diffused catarrh—usually well characterized—may coexist with tuberculosis. Then use tuberculin. Pulmonary infarctions show absence of tubercle bacilli.

Mitral stenosis usually shows slight pulmonary hemorrhage with dyspepsia, cyanosis, and cough. Frequently the anterior border of the left lung shows fine bubbling rales, or, in the apices, sibilant rhonci. The absence of fever and of tubercle bacilli, the presystolic murmur at the apex of the heart, and the doubling up of the second sound, reveal the disease.

Ulcerative endocarditis may show remittent fever, night sweats, emaciation, dyspnea, cough, bloody expectoration, but there is absence of tubercle bacilli together with evidence of endocarditis at the mitral, aortic, or pulmonary valves.

Chronic gastro-intestinal affections are not attended by fever—at least not by that daily rise which we see in this stage—and if pus should be present in some hidden locality, as for instance in the female pelvis, the liver or the kidneys, there are usually other local symptoms that point that way.

Masked or walking cases of typhoid fever may show cyanosis, sibilant rhonci in the upper and moist rales in the posterior portion of the lower lobes. The Diazo-reaction of the urine speaks for tuberculosis of the lungs as well as for typhoid. The favorable termination of the illness or autopsy will throw light on such obscure cases. Enlargement of the spleen, meteorism, and roseola, large morning remissions of fever, and presence of malaria crystallina speak for ileo-typhus.

Diabetes mellitus will reveal itself by examination of the urine.

Syphilis may keep us in suspense in those cases where there are no cutaneous lesions and in which the patient denies its contraction. Even in the last stages of osseous lesions fever may be present and, though

rare, there may be physical evidence in the lung of syphilitic gummata with consolidation and cough. The cutaneous and osseous lesions when present, enlarged spleen, with antisyphilitic treatment and tuberculin, clear the diagnosis.

Study chlorosis and leukemia microscopically—if in doubt use tuberculin.

The clinical difference between the acute and the chronic form of consumption is one of degree in rapidity of progress and severity of attending symptoms.

CYSTITIS.

By Dr. C. C. Godshaw, Louisville, Ky.

Any inflammation of the bladder is annoying, and some cases are extremely distressing. In acute case the constant desire to urinate, the tenesmus and the pain make it a most harassing condition; the patient can not sleep and his strength is rapidly exhausted. The chronic cases are exceedingly chronic; the patient often becomes discouraged, and too often we see instances in which he has tried one physician after another, and to no avail.

In both the acute and the chronic stages the skill of the practitioner is tried to the utmost. It frequently requires all the influence he has gained during years of attendance upon the family to hold a patient suffering from this disease.

Often it happens that the greater part of this trouble might have been avoided by a little more firmness in the beginning of the case. Acute cases should go to bed and stay there until they are cured. Moreover, they should be kept on a very light, bland diet. All alcoholic drinks must be rigorously excluded; this applies to chronic as well as to acute cases. The exercise taken by chronic sufferers with cystitis must be only so much as is required to keep the system in good condition; anything violent, such as horseback riding, will be very likely to aggravate the disease.

One of the most fruitful causes of cystitis is gonorrhea, and it is often a difficult infection to eradicate. Skillful treatment from the first appearance of any symptoms of gonorrhea will generally prevent its extension to the bladder; it is usually in those cases that have been neglected that we encounter cystitis. This statement, however, does not always hold true; in some instances the infection will spread in spite of anything we may do, and these cases are generally the most difficult ones to treat.

Among old people, men especially, cystitis is a common affection; an enlarged prostate damming back the urine and allowing it to ferment in the bladder. Senile decrease in resisting power makes this form of cystitis very difficult to cure.

Before discussing the treatment of cystitis I will cite two cases from my own practice as examples of different forms of the disease.

Case 1. Mr. C. R., a machinist in the L. & N. shops, consulted me recently for a gonorrheal cystitis of a very aggravated nature. It is hardly necessary to recite the distressing symptoms—they were perfectly typical. After washing out the bladder with a solution of permanganate of potassium, using a double catheter, I gave him a sample package of the Cherry Capsule Co.'s C. C. and S. S. capsules, made in Baltimore, containing copaiba, cubebs, salol and sandal oil. He took one capsule three times a day, and made a clean and perfect recovery. These capsules are readily soluble, easily digested, and cause no gastric disturbance.

Case 2. Mrs. M. R., a young saleswoman, was suffering from bladder trouble and had difficulty in holding her urine; in fact, was so annoyed that she was compelled to resign her position. Upon investigation I could detect no sign of specific origin. She was the mother of a young boy, and attributed her present conditions to a hard labor, necessitating a forceps delivery. During the puerperium she had peritonitis, and shortly afterward the cystitis developed.

I looked after her secretions, irrigated the bladder, and gave her a box of the same capsules; which, I am satisfied, aided considerably in bringing about a cure. After three weeks' treatment she resumed her position, and has since not had the slightest recurrence of her trouble.

Since my experience with these cases I have used the same preparation in many others, and have been highly gratified at the results.

In recent cases of gonorrheal cystitis it is often well to use locally a solution of one of the newer silver salts; very few of them are irritating and some of them are decidedly soothing to the inflamed surfaces. When the bladder is very sensitive a warm normal salt solution may have to be used for a few days, but with rest and a proper diet, the viscus is soon able to tolerate the stronger drugs.

In these acute cases it is advisable to give the treatment every day for a while; and when the symptoms abate the interval may be lengthened to two days. The passing of the catheter must be done with the greatest care, for any irritation is liable to cause an extension of the infection to the prostate, the seminal vesicles, or to the testicles.

When a stricture of the urethra is responsible for the damming of the urine and consequent cystitis, besides giving internal remedies it is necessary to relieve the stricture. In a young and vigorous man this measure may be carried out with little risk, but in the old and feeble we must proceed

with the greatest caution. Before attempting a radical operation it is always best, when there is time, to attempt to fortify his system with a course of tonics, because wounds in this neighborhood, although they usually heal kindly, are necessarily subject to constant reinfection by the urine, and unless the resistance of the individual is fairly good the result may prove disastrous.

DIFFERENTIATION OF THE FUSIFORM BACILLUS FROM THE SPIRILLUM SPUTIGENUM.

Certain authorities have suggested the hypothesis that the fusiform bacillus, the pathogenic agent of Vincent's agina, was the same organism as the spirillum sputigenum. Vincent has demonstrated that the fusiform bacillus never assumes the spiral form, neither in exudates nor in cultures. There are besides this other fundamental differences between these organisms. The dimensions of the fusiform bacillus are from 6 to 10 micra in length by 1 to 1.5 micra in width. The spirillum sputigenum measures from 1 to 2 micra in length by 0.4 micra in width. The fusiform bacillus is spindle shaped, or like an elongated lozenge, and its protoplasm often shows irregular vacuoles, as if it were full of holes. The spirillum sputigenum is, on the contrary, identical in form, appearance, dimension, mobility, and color characteristics, with the vibrio of cholera. It is a comma bacillus. The fusiform bacillus can be cultivated, the spirillum sputigenum can not be. The former is slightly mobile in exudates, but immobile in cultures. The second has great mobility. These organisms could not possibly be identical.

A NEW SIGN OF BASILLAR MENINGITIS.

G. W. Squires, Avon, New York (Medical Record), has found a new sign of basillar meningitis, which he says is invariably present in this disease, frequently as early as the fourth or fifth day, according to the severity of the attack. The sign is a rhythmical dilatation and contraction of the pupil, and is obtained as follows: Place the child's head between the knees of the physician, face upward, with the body of the child supported on the bed, table or lap of the nurse. Grasp the sides of the child's head with each hand and produce gradual and forcible extension of the head on the spinal column. As the head is brought back in this extension the pupils will be seen to commence to dilate simultaneously with the commencement of extension. The more extreme the extension the more the dilation.

On flexion the pupils contract, so that when the chin is forcibly brought to the manubrium the pupils are well closed up. This can be done several times a minute, and each time the pupillary phenomena will be repeated. The dilated pupils, with extreme retraction of the head in the late stages of the disease, may be in some measure mechanical or hydrostatic from increased pressure by effusion on the nerve roots or centers at the base of the brain.

LITHOPEIDION FORTY-ONE YEARS IN THE ABDOMINAL CAVITY.

F. N. Haultain (British Medical Journal) describes a case of lithopedion. The patient had become pregnant at thirty years of age, and went into labor without result at supposed full time—that is, in January, 1868. The abdominal swelling remained, and for some years gradually diminished in size. Menstruation returned a few months after the spurious labor and continued regular till the age of forty-five. The patient suffered from occasional bouts of inflammatory abdominal symptoms, but was otherwise not affected, and died somewhat suddenly at the age of seventy from cardiac disease. On post-mortem examination a calcified fetus was found behind the uterus densely adherent to the surrounding structures; it retained in a marked degree its normal configuration; the attitude of flexion was undisturbed, the limbs to the finest digits were in absolute preservation, and the nails projected over the finger-tips. The tissues were contracted and calcareous on the limbs, but on the back, scalp and breech they seemed of normal thickness. The author has found in the literature nine cases described in which a fetus has been retained for as long as forty years. In the majority of cases of advanced ectopic pregnancy decomposition results, with subsequent disintegration and passage of the fetal members through the hollow viscera, and the reasons which in one case tend toward calcification and in the other to disintegration have not been made clear. It is still doubtful whether prolonged retention in a normal uterus with resulting lithopedion ever occurs.

PSYCHOSIS IN PREGNANCY; INDUCED ABORTION.

A. Trent (British Gynecological Journal) reports that a quartipara of thirty-one, influenced by reading "Notre Dame de Paris," had from the beginning of her pregnancy the fixed idea that the child would be a monster. She refused food, so as not to feed it, and could not sleep because she could hear it cry "like some one being choked." She attempted suicide by throw-

ing herself under a train. After some days' observation in a hospital the induction of abortion was decided upon. A laminaria tent was introduced, and she immediately appeared to be better, slept pretty well that night, though she dreamed that the monster had cried out because a pin had been stuck in its head. Two days afterward the uterus was emptied under anesthesia. She slept well, took her food, and was soon absolutely normal, and in a fortnight was discharged cured. Alienists do not as a rule expect much benefit from induced abortion in the psychoses of pregnancy.

ELIMINATION OF THE BILE BY MAN AFTER THE INGESTION OF PROTEIDS AND FATS.

Francesco Randone (Il Policlínico) experimented on a patient who had a permanent biliary fistula, feeding him with different food substances and then watching the flow of bile. He gives us the following conclusions: (1) The ingestion of food in man is followed by a marked elimination of bile, which begins soon after ingestion and reaches its maximum at the end of three hours. (2) The ingestion of proteids does not modify the relations existing between the elimination of bile and that of urea in the urine. (3) The ingestion of fats does increase, but less than do proteids, the elimination of bile; this does not occur immediately after ingestion, but about the end of one hour, and is greatest after a quarter of an hour from the beginning. (4) The ingestion of fats changes the relations of urea to bile. (5) The results of Barbera, obtained by experiments on dogs, are confirmed by these on man.

WHOLESALE POISONING.

Dr. C. F. Wahrer, M. D., in the Iowa Medical Journal, asks: "Shall wholesale poisoning be sanctioned by the people of the United States to the detriment of the masses and the advantage of a few privileged criminals?"

Such a question, when propounded to any audience, without qualification, would at once be answered in the negative and no discussion would be necessary, in fact would be considered superfluous. But if followed by a statement that this is just what is being done, daily and all the time, and for no other purpose than to enrich a few conscienceless criminals, at the expense of money, health of the masses who must consume these poisonous products under the pretense that they are wholesome food, then the question needs some discussion, and the evil a remedy. Long ago it

was condemned to give a stone when bread is asked for. What would the Great Lawgiver say when not only stone is offered instead of bread, but sold in the shape of poison?

Hygiene, the sister science of medicine, and the patron saint of decent living, has made wonderful advance in the last two decades in teaching us what is proper food, wholesome food, and what is the best food under certain conditions in health and disease, but almost as rapidly has been the advancement of the prostitution of science toward the adulteration and sophistication of food, drink and medicine, so when a balance is struck, the question remains, "What have we gained in the grand total? Investigation by the numerous observers usually connected with some college laboratory, many of which are under government control, as for instance the Bureau of Chemistry, of the Department of Agriculture at Washington, have abundantly and efficiently shown how many articles of commerce are adulterated. Flour is adulterated with corn meal, rice meal, pea and bean meals, castor meal, ground peanuts and dried cheese. Eight hundred and fifteen samples examined contained cowpeas, bran, cockle seed and darnel; twenty-six samples of ginger cake were found to contain eosin, salarin, fuchsin and traces of lead, sand, magnesia and zinc white. Also numerous samples of other pastries bought in open market contained in various percentages eosin violet, anilin violet, lead chromate; also alum, with the white of eggs, so as to enable the baker to use spoiled eggs, and also zinc oxid. Many bread samples contained soap, presumably to make them light and white. To our credit it may be said that gypsum, terra alba, and chloride of tin were not found in any of the breads baked in the United States, but mostly in France, Russia and in the poorer portion of Germany. Gypsum was found in some of these as high as 59 per cent.

We have often called attention to the alum baking powder evil. When will this all end?

PERINEAL PROSTATECTOMY.

Henry H. Morton (Medical Record) gives the following reasons for using the perineal route: The comparatively low death-rate; the rapidity, ease, and facility with which the prostate can be enucleated; the trifling amount of hemorrhage and shock; the excellent bladder drainage and ability to keep the patient's bed and dressings dry; the rapid convalescence, the patient getting out of bed in ten days. There is complete restitution of the bladder functions in most cases.

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EDITORIAL.

SULPHUR DISINFECTION.

Disinfection by the burning of sulphur has been successfully practiced for many years. As stated by Surgeon General Sternberg, United States Army, "the experience of sanitarians is in favor of its use in yellow fever, smallpox, scarlet fever, diphtheria and other diseases in which there is reason to believe that the infectious material does not contain spores." This method of disinfection has also been endorsed recently by the United States Marine Hospital Service, after numerous experiments, during which the efficacy of sulphur disinfection, in the presence of moisture, was conclusively proven.

The results obtained by the Illinois State Board of Health, in the several experiments made, have been directly in line with those of other investigators. The burning of sulphur in the presence of moisture has been found an effectual method of gaseous disin-

fection, and one upon which entire dependence can be placed at all times in disinfection after diseases due to micro-organisms not containing spores.

After the preparation of the room, reliable and cheap disinfection may be secured by the following method of the use of sulphur:

(1) Use four pounds of powdered sulphur for every 1,000 cubic feet in the room. A room ten feet long, ten feet wide and ten feet high has 1,000 cubic feet. For a large closet use two pounds of sulphur.

(2) Burn the sulphur in an iron pot or deep pan. Let the pot or pan stand in a larger vessel containing water, which vessel should be placed on a table, not on the floor. For example, take a common wash tub, lay in it three or four bricks, pour in boiling water to the level of tops of bricks, put the pot or pan containing the required amount of sulphur on the bricks, place the wash tub and contents on a table. The disinfecting "apparatus" is then in working order.

(3) Moisten the sulphur with alcohol and ignite. When the sulphur begins to burn, leave the room, close the door of egress, and carefully paste strips of paper over the keyhole and all openings above, beneath and at sides of door. Keep the room closed for ten hours at least, twenty-four if possible.

Sulphur candles can be used instead of crude sulphur, but care must be taken to use sufficient candles. The average candle on the market contains one pound of sulphur. Four of these will be required in the disinfection of a room 10x10x10. Do not use a less number, no matter what direction may accompany the candle. The water-jacketed candle is preferable. Partly fill tin around candle with water and place candles in a pan on the table, not on the floor. Let at least one-half pint of water be vaporized with each candle. In the absence of moisture, the fumes of sulphur have no disinfecting power.

There is, however, one serious objection to the use of sulphur, and this must be fully understood. The fumes of sulphur have a destructive action on the fabrics of wool, silk, cotton and linen, on tapestries and draperies, and exercise an injurious influence on brass, copper, steel and gilt work. Colored fabrics are frequently changed in appearance and the strength impaired. Fabrics, however, can be effectually disinfected by hanging them on a line exposed to the sun and wind for several days. Curtains and all articles of cotton or linen, boiling or soaking them in bichloride of mercury for several hours, and portable articles of brass, copper, steel and gilt work by washing with a strong solution of carbolic acid.

Colored fabrics which have been in a room during disinfection should be immediately exposed to the sun and wind. Uncolored fabrics which will not be injured by moisture should be at once soaked in water. This action will prevent further injurious action of the sulphuric acid.

Sulphur will be found a thoroughly reliable gaseous disinfectant of considerable penetrating power, if it is intelligently employed. To obtain satisfactory results, the following essentials of successful disinfection, established by repeated experiments, must be observed: (a) The infected room, or rooms, must be thoroughly closed, every crack and crevice sealed. (b) Sufficient sulphur must be used. (c) The time for exposure must be sufficient, ten hours the minimum.

In the disinfection of stores, halls, school houses and apartments or dwellings in which there are no articles to be injuriously affected by the gas, sulphur is an idea disinfectant. Its mode of application is simple (the simpler the mode of application the better), it is cheap, the material is accessible everywhere, and, finally, the most important of all, the action will be invariably found effective when the sulphur is properly used.

THEORIES OF THE CAUSATION OF THE RHYTHMICAL ACTIVITY OF THE HEART.

Francis Williams, M. D., in the California Medical Journal says:

"We may approach the subject from its historical aspect, and in so doing I am indebted to an article in the Johns Hopkins Bulletin, by E. G. Martin. Further material has been drawn from the American Journal of Physiology and Ladois' Physiology. Haller wrote his 'Elements of Physiology' in the eighteenth century and gathered together what was then known of the heart's action. He believed the heart to be very irritable and sensitive to slight stimuli, and that the stimuli responsible for its beat were given by the blood in contact with the endocardium. Haller observed the excised frog heart beat, and thought that the air in its cavities furnished the stimuli. These teachings were accepted till early in the nineteenth century, when a French physician and physiologist, Jean Legallois, advanced the neurogenic theory, basing his conclusions upon the stoppage of the heart's beat by crushing of the spinal cord of a rabbit. About this time, 1810, Sir Benj. Brodie, in England, discussed the role of nerve influence upon the heart beat; his conclusions minimized the importance of the nerve element because he observed that artificial respiration enabled the heart beat to con-

tinue when the brain of dogs and rabbits had been removed. Brodie's work was supplemented by Dr. Wilson Phillip, who proved that artificial respiration enabled the heart to beat when the cord had been entirely destroyed in the rabbit. As a result of these studies the English school held to a modified myogenic theory. The Germans attacked the problem by making a comparative study of cardiac and skeletal muscle and then reasoned by analogy. The experiments instituted to prove the possession by cardiac muscle of properties similar to the better understood skeletal muscle met with contradictory results, but the researches in progress led to the discovery of intracardiac ganglia and the linking of a chain of evidence that seemed to render the neurogenic theory secure. The theory was modified by the discovery of the function of the vagi nerves by the brothers Weber, whose discovery of the vagus inhibitory action and sympathetic accelerator action placed the subject in the light in which it is taught by most of the present day texts on physiology. Further research has developed facts strongly in support of the myogenic theory—certain tunicates, arthropods and mollusks were said to have no demonstrable nerves in the heart, and the embryonic heart before the appearance of ganglion cells within it beats with rhythm. As a result of the study of the physiological influence of various salts, or more correctly, various ions, it was discovered that solutions of sodium chloride could arouse the ventricular muscle free of nerve cells, and even in a skeletal muscle, the power of rhythmical contradiction. This enables us to classify results in outline, thus: (a) Myogenic theory, voiced by English and supported by (1) behavior of embryonic heart and certain supposedly nerve-free hearts; (2) the power of certain salts in solution to arouse or modify rhythm. (b) Neurogenic theory, voiced originally by French and German schools, and based upon (1) anatomical considerations; (2) the undoubted modifying influence of the nerve mechanism upon rhythm. As a proof that the myogenic theory is not entirely secure, that the entire question is still open, we quote an instance in the work of Dr. Carlson, of the University of Chicago, who has been working upon the hearts of various mollusca and arthropoda. He discovered the cardiac nerves of limulus (king crab) to be peculiar; there are no intracardiac ganglia, but the cells that function as such are accumulated in a cord lying along the heart's dorsum; the heart being an elongated tube of such size as to permit of easy experimentation. Such anatomical arrangement allows the removal of the ganglia at will. The results show for the heart of limulus

that its rhythmical activity is entirely dependent upon its nerve mechanism. Even in Na Cl solution, the beat came on at once when the nerve cord was in tact, but was delayed thirty-five to forty minutes when excised. More careful research has demonstrated nerves in most of the hearts formerly supposed to be nerveless. The action of Na Cl solution is that of a poison and presents a condition probably dissimilar to the normal. In the embryonic heart differentiation has not progressed far; neuroblasts may be present. The entire question of the formation of peripheral nerves is still an open one. In embryonic cells all the primitive protoplasmic functions exist. Does the behavior of the embryonic cardiac cells form a safe basis from which to argue whether in the mature heart there is or is not the differentiation of function presupposed by the neurogenic theory? It is still an open question. Probably the exponents of the myogenic and neurogenic theories have each grasped facts which will be, when better worked out, mutually explanatory, supportive and independent.

Abstracts and Selections.—Continued.

CAUSES OF DISABILITY AFTER FRACTURES OF THE LOWER LEG AND ANKLE.

F. J. Colton (Boston Med. and Sur. Journal) believes that avoidable disabilities are nearly all due to one or more of three causes: (a) Failure to maintain or restore the general long axis of the leg, whether local deformity is much or little; (b) mechanical damage to the ankle joint or change in its plane, and (c) loss of joint motion from rigidity of muscles and tendons. In the series of special cases studied by him the following conditions were variously found, viz.: displacement of the bone ends, change of the leg axis, damage to joints interfering with their bony mechanism, arthritis (traumatic), static flat foot, not from deformity but following over-use of traumatic muscles, and contractures. These various causes are taken up in detail, some simple diagrams illustrating the author's various propositions. In regard to the prevention of the unfavorable results frequently occurring, he notes that in the first place the tendency to malposition must be guarded against, first, by careful study of lesions and by careful reduction; secondly, by careful review (checked if may be by X-rays) of the result of reduction and of the present condition—a review to be made after not over two or three weeks, when swelling and spasm are gone, yet while correction of mistakes is still easy. Later, operations are

the only resorts—undesirable, yet they are often of great service. The purely static troubles independent of malposition are usually readily relieved by careful plate-support. The contractures are, Colton believes, avoidable in all cases unless there is long continued tendency to recurrence of deformity or delayed union, or extreme trauma affecting soft parts as well as bone. They call for treatment directed toward preserving flexibility and nutrition of the muscles, instituted before fixation has rendered the early spastic changes permanent.

NOTES ON THE DEATH RATE OF INFANTS IN THE SUMMER MONTHS.

The figures and deductions of F. L. Wachenheim (New York Medical Journal) are based on studies of the New York Health Department tables for the boroughs of Manhattan and the Bronx during the months of July, August, and September of the last fourteen years. Allowance is made for temperature variations which are reduced to a true mean. The figures show a mortality reduction of from 84 to 56 per cent. of infants under one year. The decline has been most noticeable in recent years but has been most irregular in its progress. The high mortality for certain years is not easy of explanation. Since 1901 the reduction of mortality has not been maintained. The unusual cool summer of 1903 did not give as good a record as might have been expected, while the results in 1904 are far from flattering. The author acknowledges the good work of the health department, though he suggests that the bad showing of one special year, that of 1898, was due perhaps to the dismissal of a great part of an experienced staff as one of the mutations of city politics, and the substitution for these trained men of inexperienced physicians. The corrected statistics show that hot weather alone does not play the chief role in producing a high infant mortality, but they also prove, however, that with proper prophylactic measures our worst summers may be rendered comparatively innocuous.

APPLIED ANATOMY OF THE FRONTAL SINUS.

A careful study of this sinus has been made by H. P. Mosher (Boston Medical and Surgical Journal), who speaks of its size, the characteristics of its mucous lining, and vascular nervous supply. He finds that the prolongations of this cavity are very variable, but that the imperforate septum between them is practically constant, there being but one exception in one hundred skulls examined. In addition to this median septum partial septa often exists in each cavity. Each

• wall, anterior, posterior, floor, orbital and nasal portions, is fully described. Concerning catheterization of the sinus, the author declares that it is almost always necessary to remove the anterior end of the middle turbinate. The catheter should be bent at an angle a little over or under 90 degrees and introduced between the anterior end of the middle turbinate and the ethmoid bulla. It is then brought forward and rotated outward until it engages in the groove of the unciform. The handle is then depressed, and if the front nasal duct is continuous with the groove of the unciform, as is the case once in four instances, the catheter glides into the sinus, but if the groove of the unciform ends blindly the catheter brings up in this pocket or in an anterior ethmoid cell. In the majority of cases the catheter breaks through the base of this ethmoid cell and thus enters the sinus.

ENTEROGENIC CYANOSIS.

• Hyams and Bergh (*Deutsche Arch. fur klin. Med.*) say there have been reported by Stoksis and Talma during the last three years four cases of autotoxic enterogenic cyanosis. Bergh cites two cases under his observation. In the first case, a boy five years of age, the spectrum showed bands of sulphohemoglobin, whilst in the second case, that of a young man, the spectrum was that of true autotoxic methemoglobinemia. The cyanosis was intense in both cases, but varied at intervals; it differed from carbon dioxide cyanosis in that the tint was more of a violet. Both cases had severe intestinal catarrh, but no cardiac defect was apparent. The spectrum was observed by holding the instrument to the anterior surface of the ear and an electric light behind it. The cyanosis disappeared with the intestinal trouble.

A NEW TREATMENT OF ENURESIS.

K. Rever (*New York Medical Journal*) discusses the treatment for enuresis devised by Jaboulay, and used by him successfully in three cases. The treatment is based on the fact that nocturnal incontinence of urine depends upon functional disturbances of the sympathetic nervous system in the region of the solar plexus. The plexus can be reached and modified by the simple operation of injecting artificial serum into the retrorectal region.

A large serum syringe is used. The patient is placed on a table in the lateral decubitus, the limb next the table being extended, the opposite thigh being flexed on the pelvis and the leg on the thigh. After the customary antiseptic precautions, the operator being at the patient's left, the left index finger is introduced into the patient's

rectum, and the needle of the syringe is inserted almost vertically at the tip of the coccyx or a little to one side, and guided by the finger in the rectum avoids the wall of the latter. As the serum is gradually injected, a slight swelling is felt by the finger, pushing forward the rectal wall. From three to five ounces of serum may be used. Usually after one injection there will be no more enuresis, but instead a temporary retention. This may be relieved by careful catheterization, when the patient will be found to have recovered his normal control of the bladder.

A FATAL CASE OF AMEBIC DYSENTERY.

Albu (*La Presse Medicale*) observed this unusual case. The patient lived in Berlin, and was a man of 22 years. He had never been out of Europe. While on a trip to Silesia he contracted, in an unknown manner, a severe case of dysentery which proved rebellious to all treatment and which ended in his death after six months of suffering. At every microscopical examination of the stools there were found, and always in considerable numbers, ameba characteristic of the dysentery of the tropics. In the last weeks of the illness these ameba completely disappeared. At autopsy, ulcers were discovered involving the mucosa of the large intestine, extending from the anus to the valve of Bauhin. These lesions were not limited to the mucosa, but were found here and there in the muscular layer, although not having caused complete perforation.

COMPLETE LATENCY OF AN UNUSUALLY ADVANCED UROGENITAL TUBERCULOSIS.

Taubert (*Deutsche Militaerärztliche Zeitschr.*) reports a patient, a young reservist of twenty-three and one-half years, without any family history of tuberculosis, reported sick after eight days of military duty, with headache, burning pain in the vesical region, and hematuria. The only preceding illness had been a mild similar attack, one year previously, which soon disappeared. The mother had suffered with a pyelitis, for some years. Urinalysis revealed blood, coagula, albumin, no casts, and an acid reaction. The patient grew worse, and died after three weeks. The autopsy revealed a pronounced tuberculosis degeneration of the left kidney, the organ being surrounded by and adherent to thick connective tissue masses. On the surface of the kidney, there were numerous large and small tuberculous nodules. The kidney substance was riddled with large and small tuberculous cavities, filled with cheesy to creamy contents. Numerous cheesy nodules also were present. The

pelvis and ureter were filled with a thick, cheesy substance, and the ureter thickened along its entire length. The bladder wall was covered at numerous points, with adherent masses of cheesy membranous deposits. At the trygone, a large superficial tuberculous ulceration was found. The right kidney showed no tuberculous changes, but was the seat of a parenchymatous nephritis. The prostate was somewhat enlarged, hard, and riddled with innumerable tuberculous nodules.

PRIMARY CHORIOEPITHELIOMA MALIGNUM OUTSIDE OF THE PLACENTAL SITE.

P. Findley (Journal of the American Medical Association) says that twenty-one cases of unmistakable chorioepitheliomatous tumors have been observed in locations remote from the placental site. No direct anatomic connection between the tumor and the placental site was demonstrable.

These tumors have arisen while a fetus or hydatidiform mole was in situ, and at varying intervals of days and years following abortions, labors, and the expulsion of hydatidiform moles.

The vagina was believed to be the primary seat of the tumor in 50 per cent. of the cases; the uterine musculature in 15 per cent; the cervix, brain, kidney, and labium, each 5 per cent. It was not always possible to identify the primary growth.

In all cases the growth presented the appearance of blood coagula, and was only identified with certainty by the aid of the microscope.

Nothing definite is known of the histogenesis. The degree of resistance of the invaded tissues probably determines the malignancy of these growths.

Microscopic examination of the tumor will demonstrate the presence of chorionic tissue, but will demonstrate nothing as to the malignancy of the growth.

In primary vaginal and cervical growths it has been possible to make a highly probable diagnosis by a consideration of the history of the previous pregnancy, the occurrence of hemorrhage from the vagina, and by inspection of the tumor. The positive diagnosis was reserved for the microscope.

Sixty per cent. of the cases occurred between the ages of thirty and forty-one. The earliest was at twenty years of age, the oldest at fifty.

Hemorrhage is the one constant symptom in the growths of the vagina and cervix, and should always arouse suspicion when occurring weeks, months, or years after the termination of pregnancy, abortion, or hydatidiform mole. The possibility of these

growths occurring during the course of pregnancy must be borne in mind.

After the recognition of the primary growth outside of the placental site, an exploratory curettage is done and the scrapings examined by the microscope. If syncytial tissue is recognized, the uterus should be removed. Inasmuch as we are unable to judge the malignancy of the scrapings from the uterus in such cases, it would seem wise to anticipate the existence of a malignant growth by removing the uterus.

The malignancy of these growths can only be determined by the remote results. If the individual makes a permanent recovery after the removal of the primary growth, we are at a loss to know whether the growth was malignant.

It is necessary to give a guarded prognosis in all cases, because of the uncertainty as to the existence of metastatic growths and the inability to differentiate a benign from a malignant growth.

THE PROGNOSIS OF EPILEPSY.

William Aldren Turner (Boston Med. and Surg. Journal) declares that sex plays little part in the general prognosis of epilepsy. As to the influence of sex upon the mental condition in epilepsy it appears that a larger percentage of women escape the deteriorating influence of epilepsy upon the mind than men, but that when dementia develops, a rather higher percentage of women are affected. The hereditary maladies taken into consideration in the writer's investigation were epilepsy and insanity. The conclusions in this regard are that there is as great a chance of arrest of epileptic fits in those who have, as in those who have not, a known family history of epilepsy. In those who have an hereditary history, the chances as to whether the fits become arrested, improved or confirmed, are in any given case about equal. As regards general improvement, more is to be expected in those who have no hereditary disposition, while a considerably smaller percentage of confirmed epileptics is to be found among those who have no family predisposition to the disease. A family tendency to either epilepsy or insanity, although it offers no obstacle to the arrest of the seizures in favorable cases, materially increases the likelihood of the disease becoming confirmed and the supervention of dementia. As to the influence of age at the onset of the disease, the writer concludes that epilepsy commencing in infancy and childhood is the least favorable for the arrest of the fits, and the most favorable for the production of the confirmed disease. The common type of the disease, or that commencing during puberty, is the most favora-

ble form of epilepsy both in relation to the arrest of the seizures and the absence of mental infirmity. Adult epilepsy is unfavorable. Senile epilepsy is tractable. Generally speaking, the earlier a case is brought under systematic treatment, the more hopeful the prognosis and the greater the probability of improvement. The longer the interval between the attacks, the greater the prospect of arrest or improvement. Major attacks are more readily influenced by drugs than are the minor seizures. As to the cure of epilepsy, the writer speaks of fifteen cases in his series out of a total of 147, which have been observed for a period of at least nine years, as being arrested for this time. This makes a percentage of 10.2 cures. It may be taken as a general rule that cure of epilepsy has been established after an arrest of nine years. Nevertheless, a very small percentage of cases relapse after that period.

OVARY IN FEMORAL HERNIAL SAC.

A. Keiffer (Bull. de la Soc. belge de Gyn. et d'Obstet.) related the case of a woman who consulted him for a tumor in the right groin. It looked like a hernia, but on palpation felt unlike either an enterocele or an epiplocele; indeed, it simulated to a great extent a collection of inflamed glands. Keiffer operated, and exposed a hernial sac adherent internally to a mass of fat surrounding a firmer body—in fact, an ovary enveloped in thickened omentum. The displaced organ was removed, the omentum resected with the sac, and the crural canal closed. The ovary was as large as a big almond and extremely sclerosed; it contained some atrophied corpora lutea and a small follicular cyst of the size of a pea. The patient stated that she had felt increased pain in the hernia, with swelling and redness, at each period.

RECENT OBSERVATIONS IN RELATION TO GENERAL PARALYSIS.

Gully (Revue Francaise de Medecine et de Chirurgie) has studied in detail the etiology of aortitis which a large number of general paralytics and tabetics exhibit. He offers the following conclusions: In the course of tabes, aortitis is frequent. It is, with myocarditis and cardiac sclerosis, the cardiac lesion which is encountered in ataxic patients. Aortitis, like tabes, may be of syphilitic origin; it may be syphilitic aortitis, either acute or chronic, or it may be hereditary syphilitic aortitis. Specific treatment has a curative action on acute aortitis and on its subsequent attacks, as it has on tertiary phenomena in general. It has less effect on chronic aortitis. The treatment

has no effect on the dystrophies consecutive to hereditary syphilis. In the course of general paralysis, aortitis is frequent, being found once in about five cases. Aortitis, as seen by the writer, has developed for the most part in young general paralytics, or at least in those under forty-five years of age. It is, therefore, difficult to attribute these lesions to the advanced age of the patient. In the absence of any other appreciable cause, it seems to the writer permissible to refer to syphilis as the cause.

NEWER CONCEPTIONS OF THE MANAGEMENT OF BRIGHT'S DISEASE.

A. C. Croftan (Journal of the American Medical Association) considers Bright's disease as a cardiovascular disorder of manifold origin, involving primarily the heart and arteries, secondarily those organs chiefly supplied by end arteries, namely, the brain, the retina, and the kidneys. The degeneration of the kidneys therefore is a very common and important, but not a determining, feature of the disease. Bright's disease in early stages not infrequently occurs without renal involvement. Primary nephritis with the retention of excrementitious bodies may occasionally be a cause of the cardiovascular changes. This sequence of events, however, is relatively rare. The management of Bright's disease should be directed toward the prevention or removal of factors operative to affect the heart and arteries. The treatment of the nephritis is incidental, but important. He discusses the rest cure of the kidneys, diet (dangers of excessive milk feeding), hygiene, and medicinal treatment on the basis of the above conceptions.

DEFORMITIES AFTER FRACTURE OF THE FEMUR.

P. Ross (British Medical Journal) reports four cases of deformity after fracture of the femur successfully treated by osteotomy, and to application of a special apparatus. In one case of fracture in the middle third in a man of thirty-nine, the deformity (6½ cm. shortening) was absolutely cured, and the patient was walking about in the apparatus eight days after osteotomy (done three months after the fracture). The chief point in the author's statement is the application of strong traction (50-60 kilog.), after osteotomy; the traction to be applied directly to the skeleton after the method of Codivilla—that is, fixing a peg into the tuberosity of the os calcis, and getting traction in that way. Beyond some temporary pain this introduction of the peg (which may be kept in from twelve to thirty or more days) does not cause any trouble. Wherever possible

the ambulatory treatment gives the best results. The author suggests that even in recent fractures this method is to be recommended. The traction in these cases is to be applied by a Crosby splint, or associated with rigid fixation from head to foot. Each of the four cases reported by the author is illustrated by successful radiographs.

A SIMPLE TEST FOR BILE PIGMENT.

Presslich (Munchener medizinische Wochenschrift) says that he has found a method which, for practical purposes at least, presents many advantages over the tests for bile in the urine usually employed. It consists simply in adding to the suspected urine a few drops of foaming nitric acid, and stirring. In the presence of bile pigment a well marked green color is produced. Comparison with Gmelin's and Rosin's tests showed that the author's method yields more satisfactory results. It does not react to urobilin, nor to the substances occurring in the urine of patients who have been taking rhubarb, salol, aspirin, sodium salicylate or antipyrin. The simplicity of the test, the ease of performance, and the fact that large quantities of urine may be turned green by the use of fifteen to twenty drops of the acid, so that the color is easily recognizable, render it a useful method for everyday use.

A METHOD OF UNITING INTESTINES OF VERY SMALL OR OF UNEQUAL CALIBER.

T. S. Horsley (American Medicine) gives a new operation adapted to these conditions. It is impossible to describe the operation satisfactorily without the illustrations. Much of the paper is taken up with experimental work involving the process of repair in intestinal union after suture. The experiments are given in detail, and seem to demonstrate that something more than approximation is needed to secure satisfactory union.

THE DANGERS OF THE COMMON COMMUNION CUP.

Roepke and Huss (Deutsche medizinische Wochenschrift) have made extensive series of experiments to determine how great the danger of the transmission of disease germs through the agency of the communion cup really is. Sterile cups of the usual type, and containing sterilized wine were drunk from in succession by several healthy persons, and then by individuals known to have tuberculosis. The recommendations of the Imperial Health Commission to the effect that the cup shall be turned before presenting it to a fresh communicant, and that its rim

shall frequently be rubbed off with a clean cloth, were carried out, but of the ten rabbits inoculated with the material obtained by wiping the lip marks with sterile gauze, eight died of tuberculosis. Not only was the rim of the cup capable of conveying infection even after rubbing with a clean cloth, but it was found that the wine itself also became infected, so that the presentation to each person of a fresh spot on the rim would not insure security. The only solution of the problem which is practical is for each communicant to have his own cup, while the church should have a suitable supply of individual cups for those who come without them; and out of deference to those who have conscientious scruples, the older form might still be retained for the use of persons preferring it.

SERUM DIAGNOSIS IN PRIMARY TUBERCULOSIS OF THE MIDDLE EAR.

D. Simon (British Medical Journal) draws attention to the value of the above test in cases of middle-ear disease of uncertain origin. He publishes three cases of middle-ear disease with otorrhea where the serum agglutination test for tubercle was applied, and gave positive results; no other tuberculous lesions were discovered. In another series of control experiments carried out on twenty patients suffering from otorrhea, no serum reaction was obtained. It is said that in tuberculosis the serum reaction is more marked the earlier the stage of the disease, and that in advanced phthisis the reaction is very slight and often absent. If this be so (and it requires further experiment) the test becomes more valuable as a means of early differential diagnosis.

NON-TRAUMATIC CEREBRAL HEMORRHAGE IN A CHILD AGED TEN YEARS.

H. Taylor (Lancet) reports the case, the patient being a little girl, previously always well, who suddenly put her hand to her head exclaiming, "Oh, my head!" gave a cry, fell down, and was in a minute or so very sick. The parents were at first inclined to ascribe the attack to overeating, but on raising her into a chair they discovered that "she had lost the use of her limbs." The author saw her about an hour afterwards. She had been very sick and was still inclined to retch. She was reclining in an arm-chair in a semicomatose condition, but her pupils were dilated and fixed, her temperature was 97.3 degrees F., and her pulse was uncountable. The mouth was drawn over to the right side of the face, the head was inclined to the right shoulder, and her left leg was quite

paralyzed, but the left arm was not so much implicated. Early the next morning she tried to "turn over" in bed, made an abortive attempt at vomiting and quietly died. The father was a strongly built "workman;" the mother a weakly anemic rheumatic woman, had a large family, and one sister suffering from constantly recurring tonsillitis. A necropsy disclosed a hemorrhage which, starting from some vessel in the corpus striatum or optic thalamus, had literally ploughed its way into the right lateral ventricle, the resulting clot completely filling the cavity.

HYSTERIA IN THE MALE—A CASE WITH AUTOPSY.

In the October number of the *Journal of Nervous and Mental Diseases*, S. Weir Mitchell and Wm. G. Sinkler report a case of uncomplicated hysteria in the male which had been under observation for thirty years and finally came to autopsy. He had been under the care of these and other skilled neurologists, and had long exhibited various stigmata of hysteria. The rhythmic regularity of the "pendulum spasms" of his left arm was most remarkable. Dr. Sinkler once timed it as 157; Dr. Mitchell always found it 160. These continued for some time, then he had rotary movements. If the swinging arm were seized and firmly held a general convulsion would follow. Voluntary effort to control the spasm only made it worse.

He was a difficult hypnotic subject, and hypnotism exercised but indifferent influence upon the course of his disease. Cardiac weakness and palpitation preceded his death.

The autopsy only justified the conclusion that "with our present methods the most typical hysteria lasting for years presents no sign of representative organic lesion."

THE ROLE OF AN EXCESSIVE MEAT DIET IN THE INDUCTION OF GOUT.

D. C. Watson (*Lancet*) has sought to determine by observations on animals, whether an excessive meat diet produced any specific action on the ductless glands. He finds that raw meat and water do profoundly affect the thyroid glandular system. In poultry such a diet produced a striking hypertrophy of the thyroid and parathyroid, the tissue of the former assuming appearances characteristic of simple parenchymatous goitre in the human subject, viz.: Great enlargement of spaces which were distended with colloid material, enlargement of the vesical walls and in some areas, proliferation and shedding of the epithelial cells with hemorrhage into the vesical cavities.

The same diet in rats showed a diminution in the amount of colloid material, epithelial cell and connective tissue proliferation, vascular congestion and rapid degeneration of the colloid into a mucinoid substance, in other words changes suggestive of those seen in exophthalmic goitre in man. The author has no theory by which to explain the contrasted changes in the two classes of animals. He believes it possible that as one result of the excessive use of meat during recent years, there has been established in many subjects an alteration in the character of the thyroid secretion, which defect is remedied in the cases in question by the administration of thyroid gland. The adoption of this view has led him in the past year to try the effect of the administration of small doses of thyroid extract in two inveterate cases of chronic gout which had not been amenable to dietetic measures aided by skilled balneological methods. In both cases the symptoms were relieved to a striking degree, this relief having been so far of a fairly permanent nature.

INTRAMUSCULAR INJECTIONS IN INFANTILE SYPHILIS.

A. Invercool (*Semaine Medicale*) recommends the intramuscular injection of a five per cent. solution of perchloride of mercury in cases of infantile syphilis. The author points out that administration by the mouth is often contraindicated by gastrointestinal disturbances, and that the method of inoculation is liable to cause irritation of the skin. He has used the injection treatment with success in forty cases of infantile syphilis. The number of injections was three to five.

A CASE OF TYPHOID FEVER PRESENTING SOME UNUSUAL FEATURES.

The case is reported by Kenneth Anderson (*Lancet*). The peculiar features of the case centered first of all about the diagnosis. The disease began with a rigor and acute localized nephritic pain. Cystitis also came on while certain chest signs led to a suspicion of tuberculosis. Widal's reaction, however, was positive, and the later appearance of spots, the enlarged spleen and the character of the stools led to a diagnosis of typhoid. The temperature subsided to normal after a run of fifteen days. There were then three relapses separated by short apyrexial intervals, and a later fourth recrudescence of fever. The discharge of a carneous mole was the first indication that pregnancy coexisted for a previous vaginal examination had not detected any uterine enlargement, bimanual examination being hindered by rigid abdominal muscles. The foul condition of the uterine contents may

have accounted for the pyrexia of the second relapse. Other points of interest were (1) The inability to continue the administration of digitalis by the mouth (called for by the weak heart), owing to gastric irritation so produced. Fortunately the cardiac condition improved at this time. (2) The occurrence of stomatitis after the administration of mercury (given for constipation), in small doses for about three weeks. (3) The enlargement of the liver, which was present when the patient left the hospital. (4) The absence of any sequela.

DEVIATION OF THE NASAL SEPTUM.

Jas. S. Gibb (Journal of the American Medical Association) says that there is no single operation suitable for all cases of deflection of the nasal septum. Each case should be a study unto itself, and judgment of the surgeon must determine the operative measure best suited to that particular case.

The Asch operation is eminently satisfactory in the large number of cases in which the cartilaginous septum is alone deflected.

Osseous deviation and cartilaginous-osseous deviations are not suitable for correction by the Asch method.

Deviation of both the cartilaginous and osseous septum offers the most difficult problem to solve, and no one operation meets every indication, but in many cases the Watson-Gleason operation, modified to suit the case, offers a good chance for success.

Careful observation will discover a fair proportion of cases in which the removal of spurs, either cartilaginous or bony, or both, will accomplish the best result; and it is more desirable to attain the result by this method than by the more formidable division of the septum.

There are a certain number of cases which must be classed as inoperable.

Perforations occur in about the same number of cases in all operations in which an entire division of the tissues of the septum is effected.

LOCOMOTOR ATAXIA SUCCESSFULLY TREATED WITH ULTRA-VIOLET RAYS.

J. M. Liebermann (New York Medical Journal) calls attention to the importance of diagnosis in the pre-ataxic stage and reports his results in the treatment of thirty-six cases of the disease. Of these thirty-four were males. The ages varied from twenty-four to sixty-three years. Four patients were restored to good health and were able to resume their occupations. Twelve were greatly benefitted, their power of coordination restored, pain abolished and they

became able to use unassisted the upper and lower limbs. In eighteen the disease was apparently arrested, with hope of further improvement. Two died during treatment, one from lobar pneumonia and the other from erysipelas of the head. The author has employed local cataphoric dehematization before applying the ultra-violet ray. The lamp for the latter was excited by a static machine, the large Leyden jars being used as condensers. Sitzings have been given thrice weekly from ten to thirty minutes. A warm half-bath has been advised together with light massage each night. Static electricity by means of the Morton wave current or wooden bunt has been given daily for from fifteen to twenty minutes. The author does not claim that this plan will cure every case, but feels much encouraged from results thus far obtained. He notes that the application of the ultra-violet ray to dehematized tissues should be made with great care and judgment. In his opinion it is a very powerful remedy and should never be applied to more than two localities at each seance, and the area should be varied so that every day a different region of the cord is treated. He divides the spine into three regions, cervical, lumbar, and sacral, treating these alternately or in rotation.

THE ZIGZAG INCISION IN APPENDICITIS.

Riedel (Deutsche medizinische Wochenschrift) advises the adoption of the invariable rule to operate on appendicitis cases as soon as they are seen without any delay whatever. This tendency is becoming more and more universal in Germany, now that both physicians and the laity are beginning to recognize the wisdom of early operation. The author has endeavored to educate the physicians in Jena and its environ by inviting them to the operations on their patients by giving them the appendices removed for study, and if they are unable to attend the operation by sending them a careful description of the conditions found; illustrated with sketches. As a result of this, during the eighteen months from November, 1903, to May, 1906, 357 appendicitis cases were received. All of these were operated on, 300 of the number during the attack. The thirty-seven interval cases had no mortality; of those taken during the acute stage the mortality was seven per cent. This the author believes could be reduced to 2.3 per cent. if the cases could be gotten at still earlier. The term early operation, he says, is purely relative, as the nature of the infection varies in each case, so that what might be an early operation in one case would be too late in another. He proposes the employment of the

designation "correct operation" to indicate cases in which the surgical intervention occurs while the inflammation is still in its earlier stages. The preferable form of incision is what he calls the zigzag incision. The skin is cut $1\frac{1}{2}$ cm. above Poupart's ligament in a direction parallel to this structure. The external oblique aponeurosis is slit in the direction of its fibers and is held open by retraction sutures so that the internal oblique and anterior sheath of the rectus may be divided, avoiding the small nerve which runs along the outer edge of the rectus. These structures and the transversalis are also retracted by sutures so that a large area of peritoneum lies exposed for the final incision. The wound so made is extremely distensible so that even the whole hand may be inserted, and the pelvic organs, stomach, liver, gall, bladder, etc., may be investigated through it. There is no danger of hernia, as no muscle fibers are cut across, and what the author considers of special importance, no nerves are injured, the ilioinguinal and iliohypogastric nerves running close to Poupart's ligament, while the twelfth dorsal nerve is much higher than the line of incision.

RABIES AND TRAUMA.

Pfister (Munch. med. Woch.) reports a case of a 33-year-old man who with another was bitten by a dog suffering from rabies. Both were subjected to the Pasteur treatment for twenty-five days. One patient remained well, whilst the other four months later received a severe injury to the head, followed two months later by acute symptoms of hydrophobia, to which the patient succumbed. The author believes that the manifestation of this disease was brought on by the injury to the head, or otherwise it would have remained latent.

STERILE WATER ANESTHESIA IN OPERATIONS UPON THE RECTUM AND ANUS.

S. G. Gant (Medical Record) describes the good results he has had in substituting plain sterile water for cocaine and other solutions that are in vogue for the production of local anesthesia. The author has been able by its means to operate upon most rectal cases without a general anesthetic or sending them to a hospital, circumstances much appreciated, especially by the better class of patients. Anesthesia apparently is produced merely by the pressure of the fluid on the nerve terminals in the tissues, and sufficient water should be introduced thoroughly to distend the tissues, causing them to become anemic and assume a glassy, whitish appearance, when anesthesia immediately follows. This disten-

tion does not require a large amount of water, from ten minims to half a drachm only being necessary for small hemorrhoidal tumors, and from half a drachm to four drachms in more extensive operations. In introducing the water it is not necessary to use more force than is usually employed in making the ordinary hypodermic injection. In conclusion the writers state, that while anesthesia by the injection of sterile water is not effective and can not be applied in all major operations, he has employed it to the exclusion of general and local medicinal anesthetics in nearly all of his operations upon the rectum (for hemorrhoids, fistula, fissures, etc.), and with gratifying results.

THE PATHOGENESIS OF DISSOCIATION OF SENSIBILITY OF CENTRAL ORGAN.

Ugo Benenati (La Riforma Medica) has collected 31 cases, divisible into two categories, (a) syringomyelia with thermic sensibility present, in which the gray commissure was intact; (b) cases with abolition of thermic sensibility, in which the gray commissure was injured. From the study of these cases he concludes the great importance of the posterior gray commissure to be demonstrated in the transmission of thermic sensibility. Clinical facts are in accord with the author's experimental results in pointing out that the posterior gray commissure of the medulla is the organ of transmission of thermic impressions. Grasset has shown that disturbances of the sweat and vasomotor functions, thermoanesthesia and analgesia are the result of lesions of the central gray substance of the medulla, and the bulbar structures.

A CASE OF CICATRICAL STRICTURE OF THE ESOPHAGUS.

A. B. Atherton (Medical Recorder) describes a case of obstinate cicatricial stricture of the lower end of the esophagus which when first seen admitted only an olivary French bougie two millimeters in diameter. By gradual dilatation it became possible to introduce an instrument of twice this size, but after this no further stretching could be effected. The stomach was therefore opened and the stricture softened by the use of the string-and-bougie procedure of Abbe, after which gradual dilatation became possible, so that a short rubber bougie one centimeter in diameter could be permanently worn. The upper end of the bougie lay at the junction of the pharynx and esophagus, and was secured by a silk thread fastened to a tooth or to one ear. When last heard from, a year after the operation, the patient was still obliged to continue the daily use of the bougie, otherwise the stricture soon contracted.

KIDNEY DISEASES REQUIRING SURGICAL INTERFERENCE.

J. M. Baldy (American Medicine) reports two cases of floating kidney, one of cystic kidney and adenoma, one of tuberculosis of the right kidney and ureter and one case of surgical kidney. In none of these five cases were the symptoms such as to draw attention directly to the diseased kidney, and yet all five patients were cured by operation. Baldy has often noticed this lack of prominence of the symptoms direct from the kidney and the chance of their being overshadowed by symptoms coming apparently from other organs. In many cases the patients have been sent for other troubles and their physicians were surprised when told of the true situation. In ordinary cases the kidney lesion should be readily detected; the diagnosis is not so very difficult, at least for a suspicion, if time be only taken for the investigation. Mistakes in diagnosis in the hospitals are almost always due to being tempted to operate the day after the arrival of the patient, because both the doctor (who comes a long distance and must return) and the patient desire it, and unless the kidney symptom is sufficiently prominent to draw attention at once at even a casual examination, we are tempted to yield.

A SUPERNUMERARY URETER EMPTYING INTO THE VAGINA, AND ITS OPERATIVE TREATMENT.

Hohmeier (Zeitschrift f. Geburtshuelfe und Gynaekologie) reports the case of a congenital third uterine, emptying into the vagina, at a point about $\frac{3}{4}$ cm. behind and to the right of the external urethral orifice. Examination showed no connection with the other normal ureters, which emptied into the bladder. The supernumerary ureter was resected and implanted into the bladder. The patient, who was fifteen years of age, had had to have, five years previously, a phosphatic concrement, nine cm. in length and two cm. thick, removed from the vagina, where it had formed as a result of the obstruction offered by a very narrow hymen to the outflow of urine emptying into the vagina.

PERILOUS CALMS OF APPENDICITIS.

Robert Wallace Hardon (Boston Medical and Surgical Journal) sums up his paper as follows: Defervescence of symptoms and apparent better condition of a patient do not always mean recovery, but may be the forerunner of a more dangerous condition. There being no specific for the disease, no matter what treatment is used, the one who procrastinates should shoulder the responsibility

for the death. When a clear diagnosis is made, but one treatment should be advised, that of operation as soon as possible under the conditions or the golden opportunity may be forever gone. The physician who does not explain the great dangers of delay and the small comparative danger of operation is doing his patient a serious injustice, which often leads to fatal results. Operation at the proper time usually greatly shortens convalescence, and eliminates all danger from this cause hereafter. Procrastination is the greatest cause of surgical deaths, operation often being performed as a last resort, when but little hope of recovery exists.

AN APPARENTLY DISTINCT AND HITHERTO UNDESCRIBED TYPE OF PARASITE IN PERNICIOUS MALARIA.

H. M. Smith (American Medicine) reports the finding of the blood in 119 cases of malaria at the First Reserve Hospital, Manila, P. I., a parasite so peculiar and distinct from any previously described as to render it probable that this form is a distinct type of the parasite of pernicious malaria. The parasites are small hyaline discs of an oval spindle form, non-pigmented and lying in the protoplasm of the red blood corpuscles. They have a very sharply defined outline, are highly refractive, and in the center of each form is a small round dot of hemoglobin. Their short diameters vary from 1-5 to 1-10 the diameter of the red blood corpuscles, their long diameters being about twice as great. On account of their spindle shape, he designates them "spindle forms." They have no amoeboid motion, but move by revolving in their long axis and by swinging around in their short axis, using one end as a fixed point. This motion is the most peculiar characteristic of the parasite. They stain with great difficulty, and then only the periphery to a slight extent. No development of any nature has been observed in these parasites, and no forms besides these "spindle forms" were ever discovered in the blood before death or in the blood and organs after death in the four fatal cases.

METHOD OF DEMONSTRATING TUBERCLE BACILLI IN URINE.

D. Trevithick (Scottish Medical and Surgical Journal) outlines the following technique: The lower part of the urine which has been resting in a conical glass is pipetted off and centrifugalized. The deposit left in the glass is then shaken up with distilled water, again centrifugalized, and the process repeated. From the final deposit films are made and stained in the usual way. By

this method the demonstration of tubercle bacilli is rendered easier. The washing with distilled water is supposed to remove the urinary salts, which prevent the bacilli and even the pus cells from adhering to the slide or cover-slip.

SURGERY OF THE STOMACH.

Casati (La Riforma Medica), after operating on a large number of cases of cancer of the stomach, concludes that it is useless and even harmful to operate on such cases when it is not possible to interfere at an early stage of the disease. He advises the physician to have recourse to the surgeon as soon as possible after the disease is diagnosed, and not to let the case go until the disease is in an advanced stage, when surgical interference is useless. The neighboring lymphatics should not be permitted to become infected, because it is not possible to extirpate all these glands, as can be done in cancer of the breast.

MEDICAL GLEANINGS.

For severe headache at any stage of pneumonia, apply the ice bag to the head as frequently as necessary.

Meirosky has found that tattoo marks may be removed by long exposure with the Fin-sen light.

Surgical tuberculosis, no less than pulmonary tuberculosis, calls for the most careful general treatment, post-operative and otherwise.

The number of deaths from tuberculosis in England is 60,000 a year; yet it is said there are only 70 sanatoriums with room for 2,760 patients.

In the early months of pregnancy examinations should be made to determine that there is no retroversion or to treat it if it exists. A retroverted gravid uterus impacted in the curve of the sacrum always aborts.

An amputation for malignant ulceration should not be performed until the possibility of its being merely a broken-down gumma has been satisfactorily excluded.

Norway, it is claimed, forbids the newspapers to publish advertisements or in any other way to further the sale of any and all patent medicines. America, here is an object lesson for us.

For ivy poisoning, ichthyol, used in a one to three solution, will be found to reduce the swelling, lessen the heat and itching, prevent the spread of ivy poisoning.

It is claimed that in some chronic cardiac diseases with very low arterial tension, no drug gives better results than digitalis in doses of five drops four times a day.

Strophanthus has been prescribed in several cases of goiter, ten drop of the tincture three times daily, with a rapid reduction in the size of the enlargement, and in every case a cure.

Vidal, of France, reports eight cases of ulcerating lupus with tuberculous ulcerations of the neck or tuberculous arthritis of the knee all cured by systematic exposure to sunlight for several hours a day.

Always keep the tracheotomy instruments by the bedside in cases of edema of the glottis due to syphilis, erysipelas, wounds, and especially scalds of glottis.

The location of the heart beat had best be determined by its distance from the medium line, and not from the nipple line, as the location of the latter varies in different persons. If the apex beat is not perceptible, it can be located by slight percussion.

The temptation must not be yielded to to incise a psoas, hip or other "cold" abscess, except in isolated instances and then only under the most rigid asepsis. The production of a mixed infection means chronic sinus, chronic invalidism and, often, amyloid disease.

In cases of malignant pustule, the infected area should be excised at once. Then inject strong solutions of bichloride of mercury (1 to 100 is recommended) into the vicinity of the pustule and apply bichloride solution constantly on cloths. Ipecac is used by some, applied locally and given internally in five grain doses every four hours. Vaughan advises the use of nucleinic acid.

Frank M. Johnson advocates pyretal lavage of the kidneys in lithemia, pyelitis, pyelonephritis, pyonephrosis, ureteritis and chronic parenchymatous nephritis. He employs usually a solution of silver nitrate (1:12,000 to 1:2,000), but when the irritation of the pelvis and ureters is particularly severe he prefers warm, soothing injections, as of boric acid. For the tenderness deep in the urethra and about the neck of bladder, which often acts as a bar to cystoscopy, the free injection of warm, soothing oils is of service.

Any practitioner, says A. Herring, M. D., Highland Station, Kans., in Medical Herald, who has been a close observer has noticed that liquid medicines are absorbed much quicker, and exercise their characteristic energies more rapidly than pills, granules or tablets, and often much valuable time vital to our patient can be saved. This has been called an age of beautiful pharmacy. But I think we might call it an age of synthetic medicine. Many of the granules, pills and tablets we use are not what they are claimed to be. I have several times known these solid forms of medicine to pass from the bowels undissolved. . . I believe one

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reason why country doctors are as a rule better all round practitioners than their city brothers is they have what is called a working knowledge of *materia medica*. They are in close touch with nature's great store house of *materia medica*, and at this time, in the year especially it is a sort of inspiration to admire the trees, plants and flowers, and by earnest study we can acquire a better and more intimate knowledge of their medicinal properties.

A reader, well versed in French, takes exception to my *le's* and *la's*, and calls attention to an error which he believes he has caught me taking with my genders when saying *Vive la Mariani!* which, by his interpretation, makes Mariani of the feminine gender. But nothing could have been further from my wish, for Mariani is of all men an exceptional type of manhood, and fully entitled to be so engendered. In this expression of long life to Mariani, the individual was not intended, but the subject which he qualifies was in mind, that is Coca. For all the world knows that Mariani has made Coca synonymous with his name. Mariani, then, stands for Coca, and Coca means Mariani. The rest is with the French lexicographers, who, having made Coca of the feminine gender, enable us to rightly ex-

press the heartfelt wish—*Vive la Coca!* implying also Mariani, or Coca, as you will, and thus affording a pretty play on terms by way of courtesy. So then I say, *Vive la Coca Mariani, Vive Mariani!*

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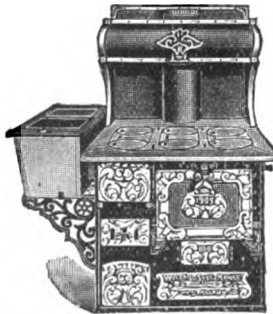
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the stomach may prevent the prompt solution of tablets, that this suggestion is well worth heeding. This, however, does not apply to antikamnia tablets, for they disintegrate at once, as soon as they come in contact with moisture. Drop a tablet in a glass of water and be convinced of this. Proprietors of other tablets would have better success had they given more thought to this question of prompt solubility. Antikamnia and its combinations in tablet form are great favorites of ours, not only because of their convenience alone, but because of their prompt and uniform therapeutic effect.

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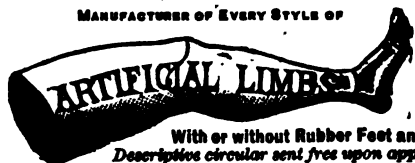
which is now really improving phenomenally by the use of your remedy in full doses. It is one of those cases in which through much suffering the nervous system has become much depressed and weakened, there also being, as a rule, obstinate constipation. The glycerine of the combination I believe to be especially useful in freeing the bile ducts. In such cases full doses is called for—a teaspoonful three times a day. There should be a wide field of usefulness for Cascaro-Glycero Phosphate, a field that I have but just entered, as it were, and yet have seen much to commend your preparation which is unique.

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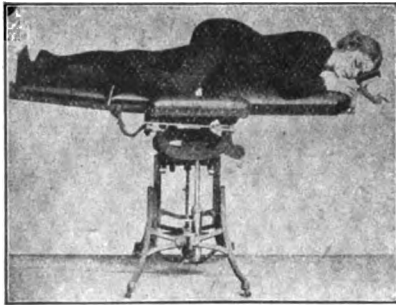
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ORIGINAL.

*SUBNORMAL TEMPERATURE IN TUBERCULOSIS.

By Moses Collins, M. D., Denver, Col., Superintendent National Jewish Hospital for Consumptives.

According to many authorities consulted on temperature, a range from 97.2 to 99.5 degrees may be considered within proper boundaries and under certain circumstances normal, although this temperature may be exceeded for a very short period. Under ordinary circumstances the temperature is highest between 5 and 8 p. m. and lowest from 2 to 6 a. m. The difference between the highest and lowest points is about 1.8 degrees, although exceptionally it may amount to 3.6 degrees.

Since normal temperature varies to such an extent in different individuals, we may expect to find an equal deviation in subnormal temperature. Unless we knew positively in each individual case what the normal temperature had been before attacked by tubercular disease, it is impossible to say how far from normal is the subnormal temperature in this or that particular case. Therefore, it is of more than passing interest to find that after a limited stay in a sanitarium of only a few days there will be noted a persistent subnormal temperature in many patients. Persistent subnormal temperature may be present in convalescents from fever, in acute alcoholism, myxedema, starvation, wasting diseases and poisoning from carbolic acid and other toxins.

The frequency with which subnormal temperature is met with in pulmonary tuberculosis has caused the question to be often asked whether such subnormal temperature had any particular significance in this disease. With a view to elucidating this point a careful and thorough investigation has been made. For the purposes of comparison and control three of the employees of the hospital, known to be sound and healthy, were selected and their temperatures taken every three

hours in a like method with that of the patients.

Of the fifty-four male patients in the National Jewish Hospital for Consumptives, seventeen were selected as proper for investigation, because of the character of their temperature charts. The duration of the disease in these patients varied from four months to fifty-one months. Only six had residence in Colorado before being admitted to the hospital. Ten of the seventeen gave a history of fever previous to admission. Six had normal temperature and one subnormal temperature. Five of the seventeen were incipient cases, seven were of the first stage, and five in the second stage. All of the seventeen cases had made more or less improvement in their general condition and had gained in weight. Their temperaments varied, some being of a phlegmatic nature, some sanguine, some choleric and some of a strumous and phthisic diathesis. Five of the patients were of an active disposition, five semi-active, and seven of an indolent disposition. The temperature of these patients was taken every three hours during the summer months by Dr. Hugo Freund, one of the internes, with the greatest care and verified in every possible way.

A thorough microscopic examination of the blood and urine was made in each case. The percentage of hemoglobin varied from 85 per cent. to 95 per cent., the number of white corpuscles from 4,800 to 7,200, red corpuscles from 3,760,000 to 4,880,000, the number of grammes of urea from nine to thirty-seven. Of the remaining male patients in the hospital at the time of the investigation, examination of their charts showed that nine had had a subnormal temperature since their admission. Of these nine, six have shown a temperature curve that has increased in subnormality since their residence in the hospital. Two of the remaining three were in Colorado over a week before their admission. Twenty were normal on their admission and became subnormal in every case in time ranging from two to fifteen days. The fall from time of admission was usually rapid, mostly in a few days. The change, however, was gradual. Two cases showed hectic fever on admission. Both showed a rapid decline, the summit of the

*Read before the State Med. Society Oct., 1904, Denver.

curve declining more quickly than the low morning record until in a short time both ran a subnormal course. Three showed a very irregular chart, the variations between morning and afternoon records varying often two degrees. Three patients have run a course with increased temperature.

Of the twenty-three female patients, seven were subnormal on admission. Two of these became fever cases, one had fever (high) occasionally, the remainder continued subnormal except occasionally. Eight were normal on admission. Their temperature became subnormal in a few days but none remained so, but would rise to normal or above occasionally. Eight were above normal on admission. One has since varied between normal and above normal, while the remainder dropped to subnormal in from one to fourteen days, but have since varied between all three conditions, sometimes remaining a full month subnormal. In no case has there been a marked subnormal temperature, not even in the morning, and the curve has generally been slight.

The table which accompanies this article gives the duration of the disease, temperature before admission, temperature on admission, the condition of the lungs on admission, improvement or otherwise, percentage of hemoglobin, the blood count, the amount of urea excreted, and whether the patient was active or not, in each particular case.

Of the five incipient cases there was a regular variation between the oral and rectal temperatures, with a maximum variation in the morning of one to two degrees and one degree in the evening.

Of the seven first-stage cases, three showed an irregular or erratic curve. In one instance, case 6, both the oral and rectal temperature was the same. Of the five second-stage cases one was irregular, case 3, even the oral temperature at one time being four-tenths of a degree higher. In the case of the three employees, two out of the three showed an irregular curve.

A careful study of the temperature charts will demonstrate the following: That the variation between the rectal and oral temperature is often irregular and not, as is generally supposed, regular with a difference of about one degree, and that difference between the rectal and oral temperatures is much greater in the morning than in the evening, as a rule; second, that occasionally the rectal and oral temperatures may not only be the same, but the oral may even be higher; third, that subnormal temperature can be found, that is below 98.5 degrees, probably as frequently in healthy individuals as in those afflicted with tuberculosis; and, fourth, that subnormal temperature can not be said to be of any particular significance in the diagnosis of uncomplicated tuberculosis.

INCIPIENT CASES.

No. 1. Regular variation between oral and rectal, maximum variation being $1\frac{1}{2}$ degrees in a. m. and variation of 1 degree in p. m.

No. 2. Regular maximum in a. m. 2 degrees higher in rectum than oral. Variation of 1 degree in p. m.

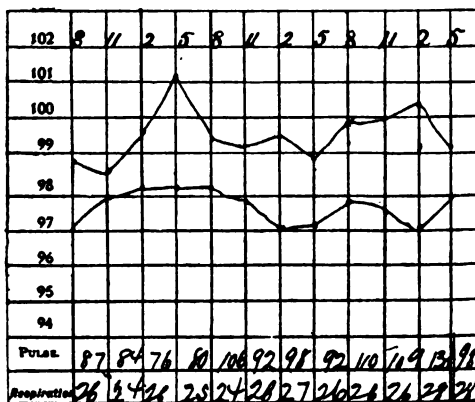
No. 3. Regular rectal $1\frac{1}{2}$ degrees higher in a. m. than oral. In p. m. rectal 1 degree higher than oral.

No. 4. Regular 1 to 2 degrees higher in rectum in a. m. than oral. In p. m. regular variation of 1 degree, being higher in rectum than oral.

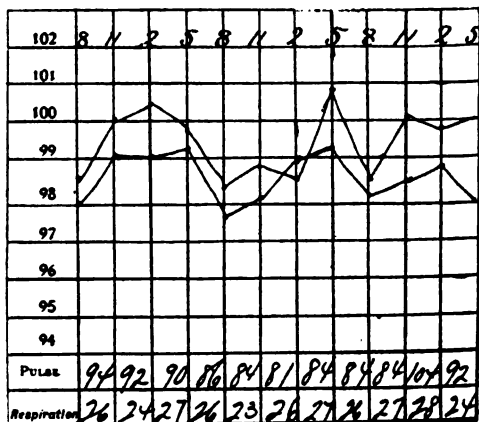
No. 5. Very regular. Rectal and oral varying 1 degree both a. m. and p. m.

N. B.—In no incipient case was oral higher than rectal.

CHARTS—Upper curve rectal, lower curve oral temperature.



M. S.—No. 5. First stage.



C. G.—Second stage.
FIRST-STAGE CASES.

No. 1. Regular maximum of 1 to 2 degrees higher in rectal than oral in a. m. In p. m. rectal 1 degree higher than oral.

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No. 2. Erratic. Minimum $\frac{1}{2}$ degree higher in a. m. in rectal than in oral. In p. m. rectal 1 degree higher than oral.

No. 3. Regular maximum in a. m. Rectal 1 degree higher than oral. In p. m. variation of $\frac{3}{4}$ of a degree higher in rectum than oral.

No. 4. Regular, rectal being $1\frac{1}{2}$ degrees higher than oral in a. m. In p. m. rectal $\frac{1}{2}$ degree to 1 degree higher than oral.

No. 5. Irregular, greatest variation in p. m., rectal being 3 degrees higher than oral.

No. 6. Erratic, rectal being higher than oral in a. m. At 8 a. m. only 1 morning was rectal and oral the same, registering 98 degrees.

N. B.—In no case except the last was rectal the same as oral, always (rectal) being higher.

Case No. 7. Regular maximum in a. m., rectal being 2 degrees higher, and also about same variation in p. m.

SECOND-STAGE CASES.

No. 1. Regular maximum of 2 degrees in a. m., rectal being higher. In p. m. regular variation of 1 degree, rectal being higher.

No. 2. Regular, variation of $\frac{1}{2}$ degree, both a. m. and p. m., rectal being higher.

No. 3. Irregular, greatest variation being in p. m., rectal being higher except one time when oral was 4-10 degree higher.

No. 4. Regular, maximum in a. m., rectal being 2 degrees higher. In p. m. rectal 1 degree higher than oral.

No. 5. Regular a. m. and p. m. Rectal 1 degree higher than oral.

HEALTHY EMPLOYEES.

No. 1. Regular in a. m. and p. m., rectal being $\frac{3}{4}$ of a degree higher than oral.

No. 2. Irregular, maximum in a. m., rectal being higher.

No. 3. Irregular, maximum being in a. m., rectal being higher.

Name	Months of Disease	Fever before Admission	Temperature on Admission	Stage of Disease	Improvement	Hemoglobin per cent.	White Corpuscles	Red Corpuscles	Urea per 100	Activity of Patient
H. C.	21	Yes	N.	2nd	—	99	6160	4320000	9	—
L. G.	11	Yes	S. N.	Inc.	+	95	7040	4640000	18	+
A. G.	23	No.	S. N.	Inc.	+	95	6080	4140000	15	—
J. G.	4	Yes	N.	2nd	+	90	6480	4080000	18	+ —
T. G.	16	No.	N.	Inc.	+	90	5920	3920000	32	+
C. G.	37	No.	S. N.	2nd	+	90	5680	4040000	17	—
N. G.	12	Yes	S. N.	Inc.	+	95	6640	4880000	17	+
J. K.	12	Yes	S. N.	1st	+	90	6080	4360000	16	—
S. L.	20	Yes	S. N.	2nd	—	95	6400	4520000	40	+ —
I. L.	10	Yes	S. N.	1st	—	90	6040	5040000	26	+
E. L.	8	Yes	S. N.	1st	+	85	6640	4200000	40	—
S. M.	8	Yes	N.	1st	+	90	6480	4240000	19	—
S. M.	26	No.	S. N.	2nd	+	90	7060	4230000	37	—
N. P.	8	Yes	T.	1st	—	85	4800	3880000	22	+ —
M. S.	51	No.	N.	1st	+	100	5920	4820000	30	+
A. S.	15	No.	S. N.	1st	—	90	7121	3760000	27	+ —
S. W.	6	No.	N.	Inc.	+	90	6800	4080000	20	+ —

MEDICAL TREATMENT OF GOITRE.

By H. H. Fletcher, M. D., Winchester, Ill.

Enlargement of the thyroid gland, described under the term of goitre, represents several different conditions, according to the tissues involved and the nature of the pathological process. If the process assumes a malignant form the growth will present entirely a different clinical picture from that of a benignant growth of the gland.

The general aspect of the tumor will also be modified by the extent of glandular involvements, and the special structures affected. There may be a hyperplasia and hypertrophy of all or a portion of the original tissue elements, or of the glandular elements alone, as seen in the follicular variety, or the interstitial tissues may be mainly involved, constituting the fibrous variety. Goitre may also develop cystic formations, especially when its type is of the colloid or adenomatous variety.

The great majority of goitres that fall into the hands of the general practitioner are of the parenchymatous class, and it is in this class of goitres that medical treatment is the most successful, especially when properly supported by judicious hygienic, dietetic and climatic conditions. In order to formulate a treatment for goitre along the safest lines, it is important to bear in mind certain facts incidentally connected with its history.

In from 80 to 90 per cent. of the cases it occurs in the adult female. This is one of the constantly occurring facts of its history. Another well-observed fact is that in nearly every case of female goitre there is some aberration of the sexual functions. There are uterine and ovarian disorders, or neurotic tendencies with general instability of the circulatory apparatus. Furthermore, the thyroid gland has been observed to undergo enlargement at the time of puberty and during menstrual and child-bearing periods. This gland is also a highly vascular organ, the thyroid arteries being larger than those going to the brain. This enormous blood supply is naturally increased by the circulatory disturbances connected with puberty in the female and altered sexual functions. Frequently recurring hyperemias of the gland are liable to culminate in enlargement of the organ.

There are many other agencies which may exert an influence in the development of a goitre, such as drinking water, topographical conditions, such as marshy soils, damp valleys, etc., together with hereditary tendencies; but these supposed causes are never constant in their operations, and, therefore, can not be regarded as factors of paramount importance. Of all the factors usually attributed to goitre not one is constantly identified with it; thus any treatment based on the elimination of such factors alone will

fail, and these failures, together with the disappointments of the ordinary iodine treatment, have so discouraged physicians that they sometimes resort to surgical methods without duly considering the dangers of such a course.

Extirpation of the gland is not only dangerous in its immediate results, but even if this peril is escaped cretinism or mental and physical degeneracy are the remote effects of the operation. Partial extirpation, setons, injections of iodine, and tying the arteries which supply blood to the gland, are all more or less dangerous and uncertain in the effect on the enlarged gland. So long as the disease is a mere deformity and does not interfere with any important functions of the body, surgical operations for the removal or diminution of the tumor are not justifiable, and if untoward results should follow an operation when it is not imperative, damages for malpractice might be recovered from the operator.

The great value of iodine in the treatment of this disease is universally conceded, and it is especially effectual in the hypertrophic and follicular forms which are most commonly met with in general practice. When iodine fails it is often from its faulty administration or lack of adjuvant treatment. To secure the best therapeutic effects of iodine in these cases general nutrition must be supported. For this purpose it should be combined with cordial of cod liver oil compound in tablespoonful doses. Any unfavorable action of the iodine can be counteracted by the addition of an equal quantity of the bromide of potassium to each dose. Fifteen grains of the iodine combined with fifteen grains of the bromide in a tablespoonful of the cordial of cod liver oil compound three times a day after meals will rarely cause iodism or produce any irritant effect on the system, and yet this dose is quite sufficient in connection with the local application of the compound iodine ointment to cause a rapid diminution of the thyroid enlargement.

CARDIAC DROPSY.

By Dr. Elmore Palmer, 309 Plymouth ave.
Buffalo, N. Y.; Ex-President of the Western New York Medical Society.

So much has been said in the medical journals lately about the dropsy following nephritis that I wish to say a few words about that form of this affection which is caused by cardiac weakness. Weakness of the heart may arise from several causes; it may be a part of a general weakness of the system; it may be caused by fatty degeneration or infiltration, and one or more valves may be ruptured or so distorted by disease as to occasion a leakage, in which case the weakness is rather relative than organic;

that is, the organ is not able to perform its whole duty, although its muscle may be perfectly sound. There may be an inflammation of the heart muscle itself, spoken of as myocarditis; this leads to various degenerations, among which is the fatty degeneration above mentioned, which is by far the commonest one.

Any obstruction to the circulation gives rise to a relative weakness of the heart, because that organ has to overcome that additional resistance besides doing its ordinary work. Cirrhosis of the liver is a good example of this; in these cases the blood is dammed back in the portal system, causing an engorgement of all the vessels. This interferes with the functions of all the organs supplied by these vessels, because the blood is not renewed sufficiently often. The obstruction in front and the pressure behind cause a leakage from the vessels; the serum escapes into the peritoneal cavity, and we call it ascites. In the same way a slowing of the circulation in any part of the body is accompanied by a leakage, the serum accumulates in the surrounding tissues, and we have dropsy of the part; or, if it is general, the name anasarca is applied.

As my practice consists largely of chronic ailments, a good many cases of anasarca come under my notice, and I will introduce here the notes taken on a few of them:

Case 1.—Mr. W. A. P., age 58; married, carpenter. For the last eight months he has noticed more or less puffiness under the eyes, and some swelling of the feet and ankles. There has been also a loss of appetite and some constipation; as he said, he "feels generally all knocked out—no ambition to do anything." An examination of the urine showed the presence of some albumin, but no casts. His heart action was weak, and a soft mitral murmur was always plainly audible.

After regulating the action of his stomach and bowels, I gave him anasarcin, one tablet, four times a day. During the first week very little improvement was noted. The treatment was continued, alternating the anasarcin with 1-67 of a grain of strychnia arsenate four times a day. His improvement was now rapid. At the end of seven weeks he was in excellent health, and I discharged him cured. There has been no return of any of the symptoms.

Case 2.—Mr. F. C. E., age 44, married, jeweler. This patient presented himself suffering from a general anasarca, which had been coming on gradually for a year or more. Up to this time he had refused all medical aid, but now was compelled to seek assistance on account of his severe dyspnoea. He passed but little urine; an examination showed no sugar nor albumin. Uric acid and the phosphates were found to be in excess.

Treatment.—I ordered a saline laxative

every morning, and one tablet of anasarcin every four hours, day and night. At the end of three days he began to show a rapid improvement, but as his heart was still a little weak I ordered an extra tonic for that. Five weeks from that date he was completely cured. This was seventeen months ago, and there has been no return.

Case 3.—Mrs. M. B., widow, age 81. In addition to the infirmities of old age, she had been troubled with a swelling of her feet and of the legs as far as the knees. This had progressed so far that she was able to walk for only a short distance at a time.

Prescribed anasarcin, one tablet, to be given four times a day. As is common among old people, especially those afflicted as she was, this patient suffered from sleeplessness; on account of which I prescribed a few drops of passiflora to be given at bedtime. This was all the treatment that was given. In ten days all the swelling had disappeared from her limbs. The dose of anasarcin was thereupon reduced one-half and continued four weeks longer. The cure was complete, and she has now gone eight months without any return of her symptoms. For one of her age her rapid improvement seemed truly magical.

Let us now analyze these cases and see what we can learn from them. In all of them the heart action was feeble, and in case 1 there was a distinct valvular lesion. This patient had also albumin in his urine, and although no casts were found, this symptom, taken in connection with the puffiness observed under the eyes, is sufficient evidence of a mild nephritis. The action of anasarcin is to tone up the heart and the walls of the blood vessels, thus restoring their natural balance. I have no doubt in time this alone would have entirely relieved all symptoms, but the heart was handicapped by its valvular lesion, and the added stimulation and tonic effect of the strychnia was of great help in rapidly restoring the lost compensation. And the cardiac power being restored, the blood once more ran freely through the vessels, the engorgement in the kidneys was relieved and they were enabled to resume their function and the dropsical effusions were quickly taken up.

There is not much to be said about the second case. It was merely a general anasarca occasioned by poor circulation. The large amount of uric acid is accounted for by the sluggish circulation, in which condition the oxidation of waste matters is incomplete. In this instance also a little extra tonic for the heart, while not absolutely necessary, resulted in a great saving of time.

The third case was one of cardiac weakness, probably accompanied, as most of them are, by some degeneration of the walls of the blood vessels. In this instance the anasarcin alone was sufficient treatment.

As to the use of other drugs in this class of cases, I wish only to caution the practitioner against the use of digitalis when the blood pressure is high. This merely raises the pressure by contracting all the capillaries, and this increase of resistance more than counterbalances the strength which is added to the heart.

CEREBRAL SEPSIS FROM THE EAR.

By N. B. Delamater, M. D., Chicago, Ill.

The fact that there may be septic poison conveyed to the brain through the various channels from almost any part of the body has long been known. That it is at all times a possibility in all cases of traumatism about the head and neck is fully recognized; that mastoid infection is very likely to be accompanied by purulent meningitis, no one will dispute. It is equally well established that septic poison may be conveyed to the brain or its membranes through the lymph and circulating channels.

It is not the purpose of this paper to discuss these well-established facts, but to call attention particularly to the necessity of greater attention to every trouble, no matter how slight, in the ear, because of the danger from infection. A few cases will illustrate this need of attention.

Case 1. A young lady, sixteen years of age, a strong, vigorous, bright, healthy girl. Family history exceptionally clean. Previous health record excellent, with the one exception that, following scarlet fever at ten years of age, there was a sharp attack of otitis media, with a free discharge lasting several months, and then ceasing apparently voluntarily. She was not especially subject to colds, but of course would occasionally be affected in this way, usually without any ear disturbance.

Occasionally, however, there would be with a cold a sharp attack of earache, followed by a slight discharge, so slight as to be hardly noticeable. She would put her handkerchief to her ear and get a little spot of moisture. This would only last a few days. It was never discovered that the hearing was at all below normal. No attention at all was ever paid to the ear, not even the first acute attack. No one for one moment supposed it to be of any consequence.

I was called into the country to see her in consultation. I found her suffering from the ordinary symptoms of a light attack of simple cerebral meningitis. Not very sensitive to light or sound. There was a decided tendency to slight chilliness at frequent short intervals. Very little temperature, did not go above 103 degrees F. Very little retraction of neck muscles, and yet sufficient to be a feature of the case. The

pupils contracted first, later widely dilated. A constant low delirium, then coma and death. No mastoid symptoms. Post-mortem.

Case 2. A fine, rather large girl, thirteen years of age. No evidence of any hereditary possibilities. Had always been considered as a remarkably strong, healthy girl. Had the usual children's diseases, including scarlet fever, light attack and without sequelae. Had not had diphtheria. She had, however, been subject to occasional attacks of earache, not so very severe, lasting only a few days. Had three attacks for two or three years preceding the scarlet fever, but no attack immediately following it. The attack came at irregular intervals, not oftener than once or twice in any year. Never less than one in any year. Had always been attributed to a slight cold. Nearly always there appeared a slight discharge from the right ear in conjunction with the attack, not sufficient, however, to attract special attention. No defect of hearing apparent. No examination of the ear had ever been suggested or made. No nasal or throat symptoms. About a year ago had one of her usual attacks of earache, not at all unusually severe, but not accompanied or followed by any discharge. Had, however, an unusual general malaise and prostration. In about a week, awakened one morning with a violent headache, the location and special character I was unable to learn.

A physician was called; he found a little tendency to chilliness and a temperature of 101 degrees F. Some general aching all over the body. Pupils not contracted. The next morning he found the temperature 102 degrees F., the pulse 130, a rather marked rigidity of muscles at the back of the neck, drawing the head a little back and to one side, slight delirium and great restlessness, pupils dilated somewhat. No tenderness in abdomen, no gurgling or doughy feeling. Very little gas. No rose spots. In short, a rather typical case of simple cerebral meningitis. Three days later her physician called me to see her with him. I found a typical but seemingly mild meningitis, with one marked peculiarity—the variations of temperature and pulse. For instance, the record for one day was:

9 a. m. Temperature, 102 2-10; pulse, 135.
11 a. m. Temperature, 103; pulse 128.
1 p. m. Temperature, 102; pulse, 128.
3 p. m. Temperature, 103½; pulse, 130.
5 p. m. Temperature, 102 3-10; pulse, 135.

While there was no wide lack of unison between the temperature and the pulse, there certainly was not that harmony in movement there should be. This I considered as a very grave indication.

On examination of the ears I found a scar in the drum of the right ear, but no perforation. During the week the delirium changed

to somnolence and to an incomplete coma. On the tenth day of the sickness, the temperature which had not at any time been above 103.6-10, dropped to 100.8-10. The pulse which had gone up to 140, remaining at that point right along. The heart sounds were regular, good force and rhythm, simply rapid. Pulse corresponded. About four p. m. a sudden collapse from which death occurred in half an hour. No mastoid symptoms. Post-mortem.

Case 3. A young man seventeen years of age. Again free from any hereditary taint and considered as a strong, robust, healthy boy always. When twelve years of age he had scarlet fever followed by otitis media, profuse discharge. The discharge had continued nearly all the time since. There would be months when very slight, but had rather frequent terms of being quite profuse.

Three months previous to my having seen him he had an attack diagnosed as la grippe, with severe pain in the ear for a few days. Seemed to recover absolutely, but without any discharge from the ear.

About two months subsequently, he began to complain of frontal headache, chilliness, hot spells and a general malaise. The headaches became more and more severe, finally terminating in fronto occipital, the temperature being subnormal a part of the time. Cerebral vomiting for several days. The head pain was very severe. At this time I was called to see him. I found a typical case of cerebral abscess. Various lines of treatment were tried. Decided relief from the pain and entire cessation of the vomiting followed the continued administration of *conium mac. en.* in eight-drop doses once in four hours.

About two weeks trephined and aspirated about 1½ inches directly above the ear, result 1½ ounce pus. One week later he died from suppurative meningitis. No mastoiditis. Post-mortem.

For illustration I have selected cases in which there was no hereditary taint. Cases previously healthy and rather above the average strength, in which there can be no cause or source of infection, also typical cases in which the post-mortem has positively confirmed the diagnosis.

The sole object of this little paper is to call especial attention of the general practitioner to the great importance of never allowing, when he can possibly avoid it, any ear trouble, no matter how slight, to go without the very best treatment obtainable.

No abnormal condition of the ear should ever be allowed to continue, if it is possible to cure it. While present it must be a constant menace of a grave nature.

I have the records of a large number of cases of which the above is a fair sample. Cure the ear and prevent the dangers of this form of meningitis.

BRONCHITIS AND BRONCHO-PNEUMONIA IN CHILDREN.

By William A. Wood, M. D., Gallatin, Mo.

Among the diseases of children at this season of the year none is more common or fatal than bronchitis and pneumonia. If anything we can say on this subject shall lead to a more careful study of these grave diseases in young children, our labor will not be in vain.

In dealing with this class of patients many difficulties confront the physician. The infant can give him no information, and the child who is old enough to answer his questions intelligently very often refuses to come to his aid; hence subjective symptoms are not available in reaching a diagnosis. The thermometer is an unreliable guide for the reason that in children the temperature fluctuates. It rises suddenly and falls just as suddenly without any ascertainable cause. The pulse is also unreliable and unsafe as a guide in diseases, because the physician has no means of knowing what it is in normal health. Under the influence of nervous excitement, anger or fright both the temperature and the pulse are changeable and uncertain. When we add to these incidental influences the disturbing phenomena of disease we begin to realize the embarrassments of the medical adviser.

The physician who is a close observer is, however, not without resources. He can get much of the information he needs from the mother or nurse of the child and a patient study of the objective symptoms. There is a revelation in the cry of the child. The cry of pain is different from the pain of anger or hunger or even of exhaustion. He must note this difference. In pneumonia the cry is suppressed in consequence of its interference with respiration. The peculiarity of a cough must also be studied. In ordinary bronchitis it does not cause pain. In pneumonia it is accompanied by more or less pain, which is plainly depicted in the face of the little patient. Physiognomy also teaches its lesson. Conditions of the countenance reveal the nature of disease. In sleep we find that the face of a healthy child expresses repose. In pneumonia there is always a movement of the nostrils, indicative of difficult respiration. A chewing motion of the mouth denotes gastro-intestinal disturbance. It is said that the upper third of the face is changed in brain affections, the middle third in diseases of the chest, and the lower third in abdominal lesions. Contraction of the brow shows pain in the head, and drawing of the upper lip pain in the abdomen. A waxy color of the face indicates kidney trouble, and a flush on the cheek, inflammation of the lungs or pleura.

As broncho-pneumonia is usually second-

ary to bronchitis, it is not an easy matter to determine exactly when it begins, for the symptoms are often very obscure, and for this reason it is important to study all the objective symptoms which may aid in reaching a correct diagnosis.

Bronchitis is a very common disease of infancy and childhood. It is variable in its extent and intensity. It begins with cough, hoarseness, difficult respiration and febrile excitement. There may also be soreness of the throat, coryza, sneezing and a watery condition of the eyes. It may be ushered in with a cold or a chilliness, languor, exhaustion and drowsiness, followed later by more or less pyrexia. The pulse become frequent with a rise in the temperature. The cough may be slight at first, but increases in proportion to the extent and intensity of the inflammation. When it is frequent and severe it will be accompanied by more or less pain or soreness at the base of the sternum, but the face does not express the same degree of suffering as in the cough of pneumonia. The respiration in mild cases is but little accelerated, but in severe cases it is short, difficult and oppressive, and is attended by a wheezing or rattling sound, heard at first in the throat, but subsequently over the entire chest area.

The physical signs of acute bronchitis in very young subjects are a combination of mucous and sibilant rhonchi. In older children these sounds are more marked, especially the mucous rhonchi. When the inflammation extends to the more minute ramifications of the bronchi the general symptoms are correspondingly aggravated. We have now the capillary bronchitis of the older writers, which is exceedingly dangerous, generally terminating in death—sometimes in a very few hours.

Every case of bronchial catarrh should be regarded as the beginning of a pneumonia. In the commencement of an attack of bronchitis a small dose of calomel and Dover's powder, followed with castor oil or salines, will be of service. Quinine should now be given in small doses at short intervals for about two days. Alternated with this, the following may be given:

℞ Vin. ipecac, 3j.
Syr. scillae, 3ss.
Syr. senega, 3ss.
Tinct. hyoscyamus, 3j.
Cord. ol. morrhuae comp. (Hagee), 3ij.

M. Sig. Take from one-half to one teaspoonful, according to age.

The child should be kept warm with flannel next to the skin, should remain in bed with the room at a uniform temperature of not less than 65 degrees F., and should be given mucilaginous drinks or barley water with such nourishment as will best meet the wants of the system. Fomentations or

hot cloths applied to the chest will often be of service.

If there is much prostration the following prescription may be given:

℞ Spts. ammon. arom., 3j.
Syr. senega, 3j.
Tinc. scillae, 3ss.
Syr. prun. virg., 3ij.

M. Sig. One-half to one teaspoonful every two hours.

In children of eight years and upwards the muriate of ammonia in small doses may be substituted for the spts. ammo. arom.

In case the inflammation has extended to the lung substance and broncho-pneumonia is developed, the chest should be enveloped in a jacket of linseed meal covered with oiled silk, and if much elevation of temperature give the following:

℞ Potassi citrat., 3j.
Spts. ammo. arom., gtts xv.
Spts. aeth. nit., 3ss.
Liq. ammo. acetate, 3ijj.
Glycerine, 3iss.

M. Sig. From one-half to one teaspoonful every two hours.

If the cough is distressing give the following:

℞ Vini antimon, 3ss.
Spts. ether nit., 3ij.
Tinct. opii camph., 3ij.
Cord. ol. morrhuae comp. (Hagee), 3iss.

M. Sig. From one-half to one teaspoonful every two hours.

Of course, symptoms as they arise must be met. It may be found necessary to resort to aconite or digitalis or alcoholic stimulants, but the above is a general outline of the treatment of these cases.

ABSTRACTS AND SELECTIONS.

VERTIGO OF AURAL CAUSATION.

Clarence T. Blake (Boston Medical and Surgical Journal) says that in view of the existing knowledge of normal conditions in the semicircular canals, vertigo of aural causation may be regarded primarily as a pressure symptom. Pressure may be exerted upon the labyrinth by forces operating from without, as the result of changes in the middle ear transmitting apparatus. It may be produced from within by invasion of the intracapsular space, as in the case of hemorrhage into the labyrinth. The effect upon the semicircular canals of intra-labyrinthine pressure thus produced will depend as to its intensity and duration upon the locality and extent of the hemorrhagic invasion. Recurrent vertigo is the result of

an excessive intra-labyrinthine vessel-dilatation, from suspension of vasomotor inhibition of reflex origin, either alone or coupled with a persistent intra-labyrinthine pressure of either extrinsic or intrinsic origin.

ARTIFICIAL FEEDING.

Artificial feeding should be adopted when the mother can not nurse; when the infant is unable to take the breast; when the mother's milk continues to disagree with the infant, or does not contain sufficient nourishment; when the milk supply remains insufficient; when the condition of the infant or the mother calls for weaning. (Illinois State Board of Health Circular.) When the milk is good in quality but insufficient, the mother should be "helped out" by giving the infant some artificial food in addition to the breast milk. This should also be done at the beginning of weaning. Good artificial feeding is better than bad breast feeding; the former should always be begun when the mother has been found unable by several experiments to nurse. Breast feeding should always be given up when the mother is a consumptive, not only because of danger to the child, but also because the drain upon the mother herself hastens the progress and fatal termination of the disease; when the labor is followed by serious complication, such as severe hemorrhage, puerperal fever, blood poisoning or nephritis; when the mother is epileptic, or choreic or so intensely nervous as to require medical attention; when there is anemia or chronic disease in the mother; when the mother has again become pregnant. Extremely sensitive breasts are not a reason for discontinuing nursing, even though there may be intense pain during the act. Persistence for a few days usually overcomes this. Menstruation does not affect the milk as much as is usually believed. The nursing mother can become pregnant; a contrary opinion is erroneous. Some mothers foolishly nurse many months beyond the time of weaning (about twelve months after birth), believing that thus they can not become pregnant. Such prolonged nursing is very harmful for the child, who is thus not properly nourished.

GENERAL AND LOCALIZED HYPATONIA OF THE MUSCLES IN CHILDHOOD.

Wm. G. Spiller (University of Pennsylvania Medical Bulletin): The author briefly reviews the work of Oppenheim and reports the following case:

A male child, twenty-two months old, was admitted to the University Hospital July 15, 1904. The family history was negative. The

child was born normally at full term. At five months it was noticed that he was very apathetic and weak. The anterior fontanelle closed at five months. The first tooth appeared at one year and at date of admission he had ten. He was always constipated and had difficulty in swallowing when weaned. The eyes had a convergent squint.

On examination the muscles were found to be flabby but of fair bulk. The tendon reflexes were absent and the skin reflexes diminished. The legs could be placed in contact with the trunk without discomfort. The child could not sit nor stand alone. Occasionally it seemed to notice a watch held before its eyes. While in the hospital it had to be fed by gavage. It died with a temperature of 104 degrees F. on August 4th.

Autopsy showed a slightly fatty liver and a normal brain and cord. The muscles seemed to be in a state of hyaloid degeneration with much fatty connective tissue. The author considers the disease purely muscular and congenital and thinks that cases may show improvement.

SURGERY OF THE BILIARY TRACT.

Richardson (Jour. Am. Med. Assn.) summarizes his conclusions on this subject as follows:

Gall stones should be removed whenever they are known to exist, whether they offend or not, provided the patient's general and local conditions are favorable.

Drainage should be employed until the bile spontaneously ceases to flow through the wound.

Hernia in the scar is best prevented by a muscle splitting incision.

Biliary fistula means a common duct obstructed by a gall stone usually, and it requires a second operation to close it or a cholecystenterostomy.

EXAMINATIONS BY THE SPIROMETER IN AFFECTIONS OF THE CIRCULATORY APPARATUS.

Guido Castelli (Rivista Critica di Clinica Medica) has examined seventy-five cases of various heart and lung affections, as well as some general diseases, and many cases of arterial disease, with the spirometer. His conclusions from his observations are as follows: 1. Diseases of the circulatory apparatus vary as to their effect on the respiration; some produce a marked diminution of power, others are normal in that respect, still others increase it. 2. There should be a marked distinction made between diseases of the heart of endocardial and of arterial origin. 3. Among those of endocardial origin, mitral stenosis most diminishes the res-

piratory power; next comes stenosis with insufficiency, last mitral insufficiency. 4. Aortic insufficiency of endocardial origin does not decrease respiratory power; when it exists in such cases it is due to arterial changes such as interfere with the pulmonary circulation. 5. Sclerosis and other affections of the arteries decrease respiratory power; after these come renal arteriosclerosis, arrhythmia, aortitis, mitral affections, and insufficiency of the aortic valve of arterial origin. 6. Angina pectoris coronaria alone produces no lessened respiratory power. 7. Cardiac erethism, even when accompanied by sensation of oppression, has no effect on respiration. 8. Respiratory power is increased in troubles of endocardial origin at the mitral orifice by the use of digitalis in small doses; if of arterial origin improvement in respiration follows a milk and vegetable diet and renal diuretics.

SURGICAL TUBERCULOSIS—POSTOPERATIVE TREATMENT.

The usual cause of death after operation for local tuberculosis is, according to Kraemer (*Deutsche Zeitschrift für Chirurgie*), visceral tuberculosis. He advises therefore that all cases should be treated with tuberculin after operation, and if the reaction is positive should be treated for tuberculosis until a negative reaction occurs.

SIGNIFICANCE AND MANAGEMENT OF CHRONIC UTERINE HEMORRHAGE.

G. E. Shoemaker (*New York Medical Journal*) analyzes the causes of chronic uterine hemorrhage. Many cases call for surgical intervention which should preserve if possible the pelvic organs and functions. Passive congestion yields to local treatment by support. Boro-glyceride tampons and the correction of constipation are advisable. The author's experience with drugs for the condition noted is unsatisfactory. Until diagnosis is established no systematic treatment is possible. In cases suggesting malignancy examination must be made of a bit of tissue. Bleeding fibroids can not be expected to stop bleeding simply because the natural time for the menopause may be near at hand. A marked hemorrhage near the time of the menopause calls for careful examination, as it may be due to malignant tissue. Changes in the endometrium associated with bleeding may not be accompanied by any very decided uterine enlargement, and careful examination may fail to indicate their presence. The most common change is a granular degeneration. A proper curetting usually relieves all symptoms. Severe hemorrhages may accompany development of a

hydatidiform mole. Malignant degeneration of placental tissue is rare. It gives continuous hemorrhage and the death of the patient rapidly follows. Concealed or irregular cases of threatened abortion or retained placenta may be puzzling. Many patients are unwilling to give a clear or correct history. Extrauterine pregnancy of an abnormal type is a source of confusion in diagnosis as some patients do not show any missed or delayed periods, have no typical tearing pains or collapse, and instead of the brownish discharge have free bleeding so that the case is regarded as one of ordinary miscarriage and the real danger is overlooked.

PLEURISY SIMULATING APPENDICITIS.

This is the subject of editorial comment (*Am. Med.*). This confusion is apt to occur principally in children who are subject to extremely sharp reactions. Pneumonia may also be mistaken for the abdominal affection. For example, a child will be taken with fever, vomiting and pain, localized in the right side of the abdomen, the disease being taken for appendicitis; but in a few days, one will detect localized dullness in the lung, with stethoscopic signs of demonstrating pneumonia. Pleurisy may be accompanied by abdominal symptoms, which give rise to the same error. The history of a child aged eight is cited (Comby), who presented a serofibrinous pleurisy during convalescence from scarlet fever. The pleural lesions were ushered in by a high fever, with a painful point in the abdomen, the pleurisy being on the left side and the abdominal point of tenderness likewise, caused some hesitation as to whether or not appendicitis was present. The abdominal symptoms were very marked, the abdomen being distended and painful; but the expression remained good. On the other hand, there was neither vomiting nor constipation. Auscultation revealed a pleuritic souffle in the lower part of the right lung, which showed that the pseudoappendicular phenomena could be accounted for by the process in the chest. Mistakes of this kind are more frequent than one might suppose. Garreau reports thirteen cases in which operation for appendicitis was done, when in reality, the cases were of pneumonia; the appendices here were normal. Certain pleurisies with a very marked reaction may give rise to a similar confusion. One should be very careful not to rely too much upon McBurney's point as a diagnostic indication, because a careful general examination will reveal the true nature of the affection. The lack of this precaution may expose one to serious mistakes and the performance of a useless and unjustifiable surgical operation.

LIGATURE OF THE PROFUNDA FEMORIS, COMMON FEMORAL, AND COMMON ILIAC ARTERY ON THE SAME SIDE, WITH PERFECT RECOVERY.

Clark (British Medical Journal) details the case of a man aged twenty-six, who, on April 25th, received a deep thrust of a pen-knife blade at the inner side of the left thigh. The wound bled freely, but apparently did well until May 12th, when the hemorrhage incident to suppuration supervened. The profunda femoris artery was then tied. Three days later sudden, severe hemorrhage occurred. The writer, happening to be present, ligatured the common femoral artery at its emergence beneath Poupert's ligament. Five days later a more serious hemorrhage took place. The writer, again being present, at once ligatured the common iliac artery by Crampton's method. The wound suppurated, but healed. On August 11th he was discharged from the hospital. Six months later he was in full employment as an outside porter at a railway station, his work consisting of taking travelers' sample boxes in a hand-barrow about the town.

ANTITOXIN FOR POISONOUS MUSHROOM INTOXICATION.

W. W. Ford (Medical News) presents a preliminary communication on this subject. The literature of mushroom poisoning is briefly reviewed. The fatal cases practically always follow the eating of one special species of plant, the white or deadly amanita. Those following ingestion of amanita muscaria are practically never fatal, for an efficient antidote to the muscarin is found in atropine. The author's experiments have been made with the amanita phalloides which he finds in abundance in the woods around his city (Baltimore) and in the Blue Ridge Mountain region. The fungi were dried in the sun, macerated in water, and the mass filtered. There resulted a thin, brown fluid, the toxic principle of which is known as phallin, which has a very destructive effect on the red cells of man and all the common animals. Following the injection of fatal quantities subcutaneously, there is in both rabbits and guinea pigs an extensive subcutaneous edema with hemorrhages in the lymphatic glands, in the serous membrane, and in the internal organs, especially of the liver and kidney. The heart always stops in diastole, and the blood may be fluid if the dose has been large. Death occurs usually within four or five days, although it may occur after the lapse of two or three weeks, owing, probably, to degenerative changes in the liver and kidney. If rabbits be treated with repeated small doses of phal-

lin subcutaneously, followed by large doses intraperitoneally, it is possible to immunize them against the action of multiple toxic doses. The mortality among animals so treated is very great, but successful results have been thus far obtained with five or six rabbits. These animals were eventually able to withstand the injection of about five times a fatal dose and their blood serum exhibited definite antihemolytic and antitoxic properties. The experiments of the author are being continued on other animals.

HISTORICAL INVESTIGATION CONCERNING THE SECRETORY ACTIVITY OF THE AMNIOTIC EPITHELIUM.

L. Mandl (Zeitschrift für Geb. und Gyn.) concludes from a histologic study of the amnion in the guinea pig, rabbit, dog, cat, and human that we are justified in ascribing a secretory function to it. The basis of his study were specimens obtained by operating at different periods of gestation. The human specimens were obtained from three cases of Cesarean section, thus excluding the changes, usually regarded as evidences of senility and cessation of function, or possibly as traumatic, found in specimens spontaneously expelled. His conclusions are based upon morphologic changes in the amniotic epithelium, which he regards as analogous to those found in the epithelium of the kidney, adrenal, and other organs known to be actively secretory. He was able to demonstrate fat droplets, evidently in the process of formation, escaping from the free border of the cells. The behavior of the nuclei and the staining reactions of the cell protoplasm resembled that seen in secreting epithelium elsewhere.

All this gives us a new view point, he says, from which to study the question of the origin, chemical composition, and biologic properties of the liquor amnii.

ARTIFICIAL LEUCOCYTOSIS AS A THERAPEUTIC MEASURE.

Hubert Allison Becker (The Therapeutic Gazette) states that it is well demonstrated that in all of the infectious diseases, excepting typhoid fever and influenza, there is a leucocytosis more or less marked in proportion to the severity of the infection. The leucocytes first surround the area invaded by the germs. Disintegration of the polynuclear cells takes place by which a new substance is set free in the blood serum. This material not only counteracts the bacterial toxin, but also influences the germs in such a way that the hyaline leucocytes become

capable of ingesting and destroying the invading micro-organisms. Since the leucocytes liberate an antitoxic substance, it follows that the larger the number of the leucocytes the larger will be the amount of antitoxin set free, and consequently the more powerful will nature become to combat infection. The writer considers nuclein the most convenient and satisfactory of the various leucocyte-increasing drugs. It must be used hypodermically as it is decomposed by the gastric juice. He recommends the 5 per cent. solution of nucleinic acid. It may be used in doses of from five to twenty minims. If the first dose is large enough it is rarely necessary to give more. Improvement begins in from six to twelve hours. There are no harmful results. The writer believes that artificial hyper-leucocytosis is one of the most powerful and wide-reaching of life-saving measures. Its full possibilities are not yet comprehended.

CONCERNING THE EPIDEMIC OF GRIPPE IN THE WINTER OF 1904-1905.

F. Bezancon and de Jong, aside from their own original work (*Le Bulletin Medical*), have studied the foreign medical literature on this subject. They refer to their conclusions concerning the rarity of the cocco-bacillus of Pfeiffer and the frequency of the saprophytes of the upper respiratory tract (pneumococci, enterococci, catarrhalis, and so on). Works giving identical results with the ones obtained by these authors have been published at the same time or afterwards by investigators in other countries. They all confirm indisputably the bacteriological conclusions reached by Bezancon and de Jong. In fact, the various foreign writers have never found, or at least have rarely found in previous epidemics, the cocco-bacillus of Pfeiffer. They have been impressed, on the contrary, by the predominance of cocci and in particular by that of catarrhalis.

THE SURGICAL TREATMENT OF INTRA SPINAL TUMORS.

Harte (*Annals of Surgery*) defines intra-spinal tumors as those which are within the spinal canal yet are not intramedullary. He has found records of ninety-two operations for such tumors with a mortality of 47 per cent., though in seventeen cases death did not occur for some weeks or months after the operations. In view of this mortality the surgeon should not hesitate to operate. The most frequent new growths were sarcoma, adhesions, echinococcus, fibroma, the number of each being, respectively, thirty-seven, eleven, eight and six. Thirty of the tumors belonged to fourteen other varieties.

The great preponderance of sarcomata and the number of cases of recovery reported indicate that the histological diagnosis is not always reliable. Harte reports two cases upon which he operated. The first was one in which there was paraplegia due to extradural thickening brought on by dorsal Pott's disease. Very marked improvement followed laminectomy. The second case was one of dermoid cyst of the spinal canal, which was removed with good results. A full description of the technique of operating is given.

EFFECT OF ROENTGEN RAYS ON THE BLOOD.

Linser (*Deutsche Arch. fur. klin. Med.*) finds that the X-rays destroys the leucocytes, especially the lymphocytes, in the circulating blood. As a result of this destruction of the leucocytes a leucotoxin is produced, and if a serum containing this leucotoxin be injected into an animal a destruction of the leucocytes will follow. With this leucotoxin it is possible to immunize against leucotoxin. It is rendered inactive by a temperature of 51 to 60 degrees C., and can pass through the placenta into the fetal circulation. The rays may in an indirect way produce nephritis, but do not affect the red blood cells or the hemoglobin. Radium and the ultra violet rays have no effect on the blood.

"CONTRIBUTION TO HEMOPHILIA."

F. P. Kimmicutt (*Medical Record*), in a "Contribution to Hemophilia," gives the following summary: (1) The internal administration of the lime salts, especially of the chloride of calcium, in doses of two grammes (30 grains) twice or thrice daily. Its continued use should be interrupted every two or three days by a period of twenty-four hours. (2) The application of solutions of the same salt with compression, for accessible surface bleedings. Aqueous solutions of one-half per cent. are efficient. Another convenient mode of employment is in the form of a finely powdered chalk mixed with one-half per cent. solution of the calcium chloride. The less soluble lime salts, such as calcium phosphate, are equally efficient for local application. (3) The use of a combination of one-half per cent. solution of calcium chloride and one-sixth volume of a solution of nuclealalbumin for local application. The nuclealalbumin can be obtained from aqueous extracts of various cellular tissues—testicle, thymus, thyroid, ovary, etc. If the prepared extracts are not available, a sup-

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EDITORIAL.

THE RELIEF OF HEADACHE.

Among the many consequences of the busy modern life, and especially of the artificial life of cities, is headache. It is, of course, only a symptom of some pathological process, but it is of such very common occurrence that it deserves a special study. The conscientious physician will always try to get to the bottom of things to find the cause of these headaches and endeavor to remove it, but the patients wants relief and wants it at once.

Let us take, for example, the case of a modern business man—a wholesale merchant. He must go early to his office and stay late, and he works to the extreme limit of his strength. At night he is thoroughly weary, and has either no appetite at all, or else he eats too much, especially of highly seasoned foods.

As a consequence of this constant mental strain and insufficient nourishment of the

brain, he is subject to frequent headaches. Anemia alone will account for a large part of his trouble, but a careful examination will usually disclose the fact that his glandular system is not functioning properly, the digestive juices are not poured out in proper amount, and the blood is loaded with waste materials which should be eliminated.

The family physician tells him exactly what is the matter; that his life is unnatural; that he must rest and pay some attention to hygienic laws. But that does not relieve his present pain which is driving him wild.

Such men are easy victims to drug habits. Some morning when the headache is especially severe a dose of morphine is tried. It relieves the pain, braces the nerves and produces a sense of mental and bodily vigor which is very gratifying. The next time he knows exactly what he wants, and takes the drug upon less provocation. And so the habit is acquired.

The matron who has the care of a family and of a large house and has also numerous social duties to perform is in much the same case as the business man. She goes and goes, and her nerves get into such a strained condition that it is almost impossible for her to sit still. She also has headaches, violent nervous ones, and will take any drug that is offered, so long as it brings relief.

Many women and some men suffer from what is known as "sick headache;" that is, one accompanied by severe nausea. This is usually caused by indigestion and is a most distressing malady.

Then there are neuralgic headaches, caused by the same agencies which produce neuralgias in other parts of the body; when affecting only one side of the head they are known as migraine, and are often a terrible affliction. Many women are subject to headache during the menstrual period. Nearly all fevers are accompanied by this symptom. Hypertrophy of the heart and arterio-sclerosis usually give rise to prolonged and severe headaches.

When we come to inquire into the pathology of the affection we find that there are several processes which may produce this symptom. There is a headache of anemia as well as one of plethora; and many poisons circulating in the blood may produce it, whether they are introduced from the outside as such, or are elaborated within the body by faulty metabolism, or accumulate in the blood from lack of elimination.

Since the causes and the pathology are so varied the treatment must likewise be varied to suit each particular case. The first thing is to ascertain the general class to which the case belongs. Is it caused by anemia or plethora of the brain, or by some poison? These three classes will include

nearly all of the common varieties, but some cases will have to be included in two of the classes, as we may find plethora of the brain and poisons in the blood in the same case.

The anemic variety is generally indicated by a general anemia of the system, by pallor of the face and by poor circulation. Plethoric headaches are accompanied by full arteries and a bounding pulse, the eyes are suffused, the veins of the forehead and temples are full of blood. Poisons circulating in the blood are generally indicated by a discoloration of the sclerotic of the eye; the pulse may be fast or slow, full or weak, but the beat is usually sudden and nervous.

The first great indication is to give a palliative; the patients wants to be relieved right away. For this there are few drugs so generally efficacious as bromidia. In some cases where plethora is the principal symptom you may try nitro-glycerine, with or without a little veratrine. These will dilate the capillaries of the whole body and thus draw away a large part of the blood from the brain. Similar treatment is also indicated in those cases caused by arteriosclerosis.

The preparations most commonly administered for headaches in general are the coal tar derivatives; they are the principal ingredients of the powders put up by the various drug firms and sold as "headache powders." Of these acetanilid is probably the most powerful. When taken habitually, as often happens, it is a most pernicious drug, weakening the heart and interfering with the oxygen carrying power of the blood. It is a good plan to combine a little citrate of caffeine with any of the coal tar series in order to counteract their depressing influence; caffeine alone will relieve many cases.

In "sick headaches" and others dependent upon indigestion, it is well to give first a palliative, such as bromidia, and then to give repeated small doses of antacids, such as sodium bicarbonate or magnesia, and follow these up with a cathartic. Of course, if the indigestion is acute and the stomach loaded, an emetic will give the surest and promptest relief.

Those cases which are caused by the accumulation of waste matter in the blood must be treated by stimulation of the excretory glands; in this connection the function of the skin should not be forgotten.

For nervous and hysterical headaches the inhalation of the fumes of ammonia is often a sufficient treatment; in severe cases the valerianate of ammonia or valerianic acid are required.

The conscientious physician will never be satisfied with giving merely temporary relief, but will endeavor by all means in his power to induce his patients to lead more sanitary lives. The palliative treatments

such as are most of those suggested above, are very necessary to relieve the symptoms while the slower, general treatment is taking effect.

• DANGEROUS COMPLICATIONS OF MIDDLE EAR DISEASE.

The close proximity of the brain cavity to that of the middle ear itself, with direct communication along the lymphatic vessels and veins in this locality, makes middle ear disease one of the most dangerous affections that can befall an individual. The editor of the St. Louis Clinique declares that brain complications are exceedingly frequent in middle ear disease, although physicians as a rule, do not recognize this fact and will fool away valuable time, dropping this thing and that thing into the ear to relieve the pain, and applying poultices of all kinds expecting to draw an abscess of the middle ear to a head.

When the drum cavity is filled with pus and the child is crying with pain, the pus should be let out at once and treated just as if the abscess had occurred in any other part of the body. In such a condition, what could be more foolish and unscientific than to treat the case with poultices and stuff dropped into the ear to relieve the pain (which it never does) and wait for the abscess to break of its own accord into the internal ear, or perhaps into the brain cavity. It would be just as rational to give a young lady a hypodermic injection of morphine to relieve the excruciating pain from a tight shoe as to treat a middle ear abscess with poultices and sweet oil and laudanum to relieve the pain.

Let out the pus by a free incision in the drum membrane and the pain will cease. If this be done early (within the first twelve hours) no other treatment will be necessary, and the patient will be spared the danger or perhaps death from a brain abscess and the ear will be saved with little or no loss of function.

The time is here when every physician should know the dangers of middle ear disease. Every medical journal contains reports of cases of brain abscess originating from either acute or chronic ear disease, yet we find these unfortunate ear patients are being treated in the most unscientific fashion on every hand.

An abscess of the middle ear neglected and untreated will, as a rule, result in a chronic purulent otitis media—a mastoid abscess or abscess of the brain and possibly all three combined. The first condition may lead to an acute abscess of the mastoid, the brain cavity or both, thus requiring a capital operation to save the life of the patient, to

say nothing of the suffering and the danger to which the person has been subjected, all because the proper treatment has not been employed by the physician in charge.

ECZEMA.

Perhaps there is no term in medical nomenclature more abused than the word "eczema." One very distinguished author says that it is used as a name for any chronic or inflammatory skin affection with the nature of which the physician is not familiar. This is only too true; the fault lies largely with the medical schools, for in the majority of these the study of diseases of the skin is not made compulsory, and students will nearly always slight the elective courses.

As a matter of fact the pathologists themselves have by no means settled upon a definition of this disease, and some include under this heading many affections which others designate by different names. As usually applied, the term includes a number of diseases which resemble one another more or less in appearance but which may arise from totally different causes.

Let us take first those cases which are evidently produced by some external irritants. Under this comes a large group of affections known as trade dermatites; they are caused by the irritating substances to which the patient is exposed in the course of his daily occupation. These attack the hands principally, and to some extent the face, as being the parts most exposed. Acute cases are occasionally seen, but the majority are chronic. They are characterized by thickening and cracking of the skin, accompanied by redness, itching and pain.

These are difficult to cure because the patient is compelled to continue at his trade. The principal indication is to protect the skin, applying at the same time a mild antiseptic. A good plan is as follows: After the day's work is done let the patient wash his hands thoroughly in warm water and a mild soap, then apply a little resinol and bandage the hands, leaving the bandage on all night. In the morning he may remove the bandage and rub his hands with a dry towel. During the day he should not wash his hands at all, but when there is any necessity for cleansing them let him rub them with oil and then remove that with a dry cloth.

After the irritation has subsided, an ointment containing from 3 to 6 per cent. of salicylic acid applied daily will help to remove the induration.

The irritation produced by certain dye stuffs used in clothing is sometimes known as eczema, but a better name is dermatitis venenata. These cases are practically always acute, and after the cause is removed

any soothing application will help the skin return to its normal condition.

But the real eczemas and the ones that are difficult to treat are those dependent upon some malnutrition or faulty elimination of the waste products of the body. These are the cases that hang on for years and go from physician to physician. The great trouble is that they generally get merely a little zinc ointment externally and arsenic internally. These two are excellent drugs in their place, and many cases are cured by just this treatment, but many more are not. The physician must find out the real cause of the trouble and endeavor to remove that. Unfortunately this is not always possible, as in those cases in which a chronic nephritis is the fundamental cause. Much can be done, however, to relieve these sufferers, and the eczema may be made to disappear entirely for a time; but when the elimination fails the skin eruption will reappear. The general treatment must be that of nephritis; locally, a variety of remedies are used.

Chronic cases can not be treated with one prescription; they must be seen frequently, and the treatment changed to meet the varying conditions. As a general rule, we may say that they should be alternately stimulated and soothed. The stimulation brings the blood to the part and helps to remove the thickening of the skin which is usually observed. If the skin is tender and will stand but little stimulation, one of the best applications is resinol, which is antiseptic and soothing.

One of the best drugs for acute and comparatively mild cases is ammoniated mercury; it may be used in an ointment in a strength of from 1 to 10 per cent. The soothing and astringent properties of the oxide of zinc are too well known to require remark.

It is a very common practice among many physicians to apply ointments for all skin troubles; in this they make a great mistake. Ointments have their uses, but in many cases they are directly contraindicated. When the skin is actively inflamed, and when there is much exudation, the grease stops up the pores and dams back the exudate when it should be allowed to escape. Such condition should be treated by lotions, either true solutions of various drugs or powders suspended in water. The old calamine and zinc lotion is a good example; it is composed of two parts carbolic acid, four of calamine, eight of zinc oxide, twelve of glycerine, sixteen of lime water, and distilled water to make one hundred and twenty parts. Before using, the bottle should be well shaken; the amount to be applied is poured out into a saucer and dabbed on the part with a bit of absorbent cotton. The rest that remains in the saucer is to be

thrown away. In case of infants, for fear of their absorbing too much of the carbolic acid, it is well to diminish the proportion or to substitute some milder antiseptic, such as boric acid.

"LIQUID MEDICINES VS. ALKALOIDS."

Dr. Pitts Edwin Howes, secretary of the Massachusetts Eclectic Medical Society, in one of our esteemed contemporaries, writes:

"In several of the medical journals there appeared an article, written by me, entitled 'Superiority of Liquid Medicines Over Alkaloids.'

"The fact that it has been copied extensively by the medical journals of the allopathic, homeopathic and eclectic schools is sufficient evidence of the interest which it awakened among the editors of medical literature. Many favorable comments have been received regarding the position there taken.

"As far as I have been able to ascertain, the criticisms against it have emanated only from those who are the followers of the teaching of the Abbott Alkaloidal Co., regarding the use of their preparations. Indeed, the most extended of these is from the pen of one of the editors of their journal, appearing in the February number of *The American Journal of Clinical Medicine*, formerly *The Alkaloidal Clinic*. By the way, if their method of prescribing the alkaloids is so far in advance of everything else known to the science of medicine, why have they dropped the word "alkaloidal" from their title?

"The casual reader of the criticism on the editorial entitled 'The Rounder' might think that some good points had been scored in favor of the alkaloids. The critical reader, however, who is familiar with the article which called the editorial into existence, must admit that the larger portion of the argument is based upon the two weakest parts of all discussions, namely, sarcasm and ridicule. These are always the weapons of those who feel their logic is poor and their cause weak.

"To the assertion that the article under criticism was written to aid any special manufacturer, I wish to make an emphatic denial. My intention was to show—and I still contend most positively that it does—the superiority of liquid medicines over alkaloids along three distinct lines, viz.: They are more easily absorbed, they exert their action more in conformity with Nature's laws, and they represent the product of Nature's laboratory.

"Any one at all familiar with the laws of endosmosis and exosmosis must admit that such action only takes place with liquids.

Hence, if solids are introduced into the stomach they must be reduced to solutions before they can be taken into the blood and exert any effect. As soon as your alkaloid is dissolved it becomes a liquid and acts as such. The alkaloidalists recognize this fact when they make their solution before administering their drugs. There are many physicians, however, who prescribe the alkaloids in the form of tablets—more or less soluble—and these come under the head of solids and must be treated as such.

"Vast quantities of quinine and strychnine tablets, or pills, are consumed by the American people annually. It is a debatable question whether they do more harm than good. There is no doubt that many deaths have been hastened by their excessive use. The condition known as quininism is far worse than that for which the massive doses of quinine are frequently prescribed.

"Many times the continued use of strychnine produces an extreme hyperemia in the vascular system, which tends to prolong, instead of shortening, the difficulty.

"Liquid medicines exert their action more in conformity with Nature's laws, because they more nearly resemble Nature's method of reproducing her own products. Show me a single work of Nature, either in the animal vegetable or mineral kingdoms that is formed by the use of active principles alone, and I will be more willing to adopt the theory of exclusive alkaloidal medication.

"There is no chemistry which is so complex as that which is found in Nature's laboratory. She makes use of no needless ingredients. They all have their use and are employed for some specific purpose. Therefore, when we employ remedies made from plant structures instead of plant fragments to restore the loss of equilibrium in man's physical condition, we are working along the lines established by Nature herself, and our efforts are more likely to be crowned with success.

"The gist of the argument, however, in favor of the liquid medicines as opposed to the alkaloids is, that the former represent the whole plant, and the latter only a part, and possibly not the most important part at all.

"Chemistry teaches us that sulphuric acid is represented by the formula (H_2SO_4). That this acid is composed of sulphur trioxide (SO_3) and water (H_2O). Hence, sulphur would represent the alkaloidal principle of the acid, as the hydrogen and oxygen are simply gases when reduced to their free state. Would any intelligent physician prescribe sulphur with the expectation of getting the caustic effect of sulphuric acid? Again, drop a single atom of oxygen from your sulphuric acid formula and you have sulphurous acid, the effect and use of which

is entirely different from that of the stronger.

"If a slight change makes such a profound result in a comparatively simple chemical compound, how can you estimate the change which takes place when all the elements except the alkaloid are eliminated?"

"In the article 'Superiority of Liquid Medicines Over Alkaloids' I asked this question: 'Who would be rash enough to assert that all the good of cinchona lies in the quinine, or of nux in strychnine?' My alkaloidal editor answers: 'Only about nineteen-twentieths of the medical profession, and not one-hundredth would attempt to secure from the crude plants the benefit obtainable from these two alkaloids.' That may be his opinion, but I am not ready to accept it as that of the profession at large.

"It belittles the use of nux vomica and cinchona in a way that is not at all compatible with the facts as shown by those who are most expert in their use. Nux vomica has a place in the practice of medicine that is infinitely larger than the legitimate place of strychnine. Strychnine is primarily a heart stimulant, and should be confined to stimulation of the muscular fibers of that important organ. Even here it should be used with care and moderation, for its excessive use will, most likely, produce undesirable results.

"Nux vomica, on the other hand, has a wide range of action. The entire digestive tract will feel its beneficent action. Therefore, the use of nux vomica would naturally be as extensive as that of strychnine—with its contracted realm of action—would be restricted.

"This may seem strong language to those who have not made a study of nux vomica, and do not understand what can be done with this remedy in large and small doses. I believe, however, that over nine-tenths of all eclectic and homeopathic physicians, and not a few of the allopathic, would bear me out in these statements.

"Our alkaloidal editor—he did not sign his name—also tells us that 'Nature regulates the plant physiology for the sake of the plant, and not for a supposititious human being who is to be created some millions of years later.' Has he forgotten the fact that the fauna of each cycle of the world's history are adapted to that particular period in which they are found? That it would be as impossible to find the plants of our period in those of prehistoric times as it would be to find the animals of that age in the world to-day! Vegetation on the earth's surface has ever been adapted to the needs of the animals living thereon. Hence, it is not 'poetic or superstitious,' but most emphatically practical common sense, to assert that the medicinal qualities in plants

of the present time were intended for the use of those now inhabiting the globe.

"The whole history of the eclectic school of medicine is a proof of the truth of this statement. They have always used, in their investigations and treatment of diseased conditions, the preparations made from the entire plant. In the past seventy-five years they have collected and formulated a vast amount of practical knowledge upon the use of the indigenous remedies of our country. The value of their work is just beginning to be appreciated by the medical profession at large. Their method of cure is being more extensively practiced than ever before.

"As these deductions have been drawn from experimentation with the whole plant, and not with plant fragments, it ought not to be expected that their drug indications would serve as a guide for alkaloidal administration. That this is attempted, any one can readily satisfy themselves by reading the literature on the subject of alkaloidal medication.

"I am accused of doing my colleagues a 'gross injustice' when I claim that their freedom from therapeutic nihilism is due to their use of liquid medicines. That statement has been made many times before in eclectic literature, and has never been questioned. It remains for the alkaloidal editor to be the first—as far as I know—to raise the question. How far his interest in the Abbott Alkaloidal Co. caused him to make such a statement I leave for him to determine.

"The alkaloidal craze was fought out in the eclectic school during the 'fifties,' long before John Uri Lloyd was identified with the manufacture of medicines.

"My acquaintance among my colleagues is quite extensive, and I have yet to learn of a single one who has abandoned the use of the liquid medicines for that of the alkaloidal principles.

"Enough has been said to counteract the statements in 'The Rounder,' as published by our alkaloidal editor, and I am willing to leave the result in the hands of a discriminating and intelligent medical profession."

Abstracts and Selections—Continued

ply may be procured readily by mincing any of these tissues in a weak alkaline solution (1-500 solution carbonate of sodium), and filtering through gauze after a few minutes. (4) The application of a stream of carbonic acid gas to the bleeding surface, in accessible hemorrhage; its inhalation, freely mixed with ordinary air or oxygen, in concealed hemorrhage. (5) The use of 4 per cent. solution of chloral hydrate for surface bleed-

ing, and also of adrenalin (1-1,000), with compression.

SKIN DISEASES IN YOUNG CHILDREN.

Skin diseases in young children should be treated according to three fundamental rules, states Fox (Practitioner). First, scales, serous discharge, pus formation and crusts must be completely removed by non-irritating methods, such as gentle bathing with tepid oatmeal gruel, the crusts being softened by olive oil, boric acid fomentations or cold starch poultices. Second, scratching and rubbing must be prevented by soothing applications or by the manual application of cardboard splints. Third, inflamed surfaces must be treated by medicated dressings and an occlusive one in the form of a compress of muslin or lint spread with salves or in the form of pastes or varnishes.

A PIESEOMETER FOR THE ACCURATE DETERMINATION OF ABDOMINAL RIGIDITY.

T. W. Kilmer (Medical News) has devised an instrument for this purpose which consists of a delicately tempered and accurately tested spring concealed in the handle of the instrument. This spring is accurately gauged so that it will take so many pounds pressure to press the small knob at the end of the plunger a given distance into the tissue muscle for instance. This plunger is so arranged that it may be drawn out to any distance from one-eighth of an inch to three inches. The metallic disk is used, as it were, as a horizontal line. The index of resistance of a given part of an abdomen is a fraction, the numerator of which is the number of pounds' pressure which it takes to press the plunger up to the horizontal line (metallic disk) into the abdominal tissue. The denominator of this fraction is the length at which the plunger was set. Judgment is required in the use of the instrument as regards the length of the plunger. It may be necessary in a very fleshy person to extend the plunger to the extent of an inch or an inch and a half, according to the amount of fat under the skin. Also the plunger must be extended to the same distance in each examination of the same point on the same patient.

IRON IN STOMACH DISEASES.

Elsner (Therapleider Gegeuwart), Berlin, considers it established that iron is absorbed and assimilated, and that organic combinations are the most suitable for therapeutic administration because iron is contained in the food in proteid combination. A differ-

ence in the hemogloblin-forming power of the various preparations of iron has not been demonstrated, so that the choice of the various preparations at present should be decided by their effect on the digestive organs. Elsner experimented with a hemoglobin preparation to determine its effect upon the digestive functions. He concludes as follows: Symptoms of dyspepsia do not contraindicate the use of iron preparations, but in such case functional investigation of the stomach should precede the use of iron. Iron preparations are contraindicated in organic stomach diseases, with hyperacidity or hypersecretion, and if existing dyspeptic troubles are increased by the use of iron.

FRACTURE OF THE SPINE.

Burrell (Annals of Surgery) gives a summary of the 244 cases of fracture of the spine at the Boston City Hospital between 1864 and 1905. There are three methods of treatment—the expectant, reduction and fixation, and laminectomy. The latter may be primary or secondary. The author believes in the primary operation unless contraindicated by shock. The technique of operations is that of Monro, described in the Journal of the American Medical Association of January 6, 1900. Burrell's conclusions are as follows:

1. That fractures of the spine may well be divided into two classes: first, fracture of the spine with injury to the cord; and, secondly, fractures of the spine without injury to the cord.
2. That it is not best to decide what the treatment of an individual case of fracture of the spine should be from the statistics, because the lesion varies so widely.
3. That in many cases of fracture of the spine it is impossible to primarily state whether the cord is crushed or pressed upon by bone, blood, or exudate, except by an open operation.

THE SANATORIUM FOR TUBERCULOUS PATIENTS AND ITS MEDICAL AND SOCIAL MISSION.

S. A. Knopf (New York Medical Journal) decries the silly ideas which have crept into the minds of many people regarding possible dangers from the proximity of tuberculosis sanatoria, and shows that they do good, not only to the patients housed in them, but also have a beneficial effect on the sanitation of surrounding communities. Residence in such an institution teaches the patients how to care for themselves, and they become, when they return to their own families, missionaries of good hygiene. Moreover, the modern institution does much for its pa-

tients in the line of educational benefits—as lectures, schools for children, music classes, etc. The sanatorium movement gave the impulse to the antituberculosis movement, through which the rich have come closer to the poor, the educated closer to the uneducated, while the kind-hearted have roused the interest of the indifferent. All have united their efforts to combat a common foe.

AVULSION OF THE TUBEROSITY OF THE TIBIA.

An exhaustive article on this rare lesion is contributed by Gaudier and Bouret (*Revue de Chirurgie*), who collected twenty-three cases. The fracture is always produced by muscular action, and may be either complete or the fragment may remain attached at its upper end and be turned up as on a hinge. In either case the diagnosis is usually easy. The joint is generally opened in the former case, and hemarthrosis often results. In case of incomplete fracture the fragment should be drawn down into position and held by plaster and bandages until union occurs, which requires about three weeks. If the fracture is complete reduction and retention are generally impossible, and in these cases, especially if there is hemarthrosis, the part should be exposed by a U-shaped incision and the fragment drawn down and fastened in place by sutures of fine silver wire or by silver staples driven into the bone. In case there is difficulty in replacing the fragment a strong silk suture may be passed through the patellar tendon and traction exerted on it. Passive motion should not be delayed more than ten days, and walking may be permitted after three weeks. In cases not operated on passive movements are not begun until after twenty days and standing not until much later.

CLINICAL REMARKS ON THE OPERATIVE TREATMENT OF SIMPLE FRACTURES.

W. Arbuthnot Lane (*British Medical Journal*) states that it is now more than thirteen years since he devised the operative procedures in the treatment of simple fractures of the long bones, which he has systematically employed with uninterrupted success. He believes that this is the most efficient method at our disposal. The details of the operation are as follows: The skin is first made thoroughly clean. This sometimes takes several days. Moist compresses with careful scrapings are most effective in getting rid of suspicious material. After this a germicide is applied to make the skin as clean as possible. An incision

is made which is large enough to enable the surgeon to deal effectually with the fragments. This incision should be made in a place which will involve a minimum chance of damage to important structures, and which will offer accessibility to the wound. The skin should be excluded from the wound by attaching sterile cloths to the cutaneous margins by forceps. After the fragments are exposed they are examined; and when all clots and material intervening between them are removed, they are brought into accurate apposition. Much traction may be necessary, as well as the leverage action of elevators and the approximating influence of powerful, long-handled forceps. Strong compression forceps are used if there be any bleeding. When the fragments are accurately apposed, screws, silver wire, or staples retain them in position. The screw is generally the most efficient; but great care must be taken in drilling the hole to make it the right size for the barrel of the screw, otherwise the bone may be hopelessly comminuted. If much oozing is expected, a drainage tube may for a day or two be employed with advantage. Generally a splint is required after the operation, but in certain cases it is impossible to employ any support. The writer then cites the history of several interesting cases, presenting cuts of the lesions and of the special instruments used.

A CONTRIBUTION TO THE TRAUMATIC DISEASES OF THE PANCREAS.

Dr. Robert Hilgermann (*Virchow's Archiv.*): The relation between trauma and tumor formation has become more and more important, and every fact is of interest that shows such relation, especially for the pancreas. Because of the supposedly rare injuries of this organ, except fatal ones, this relation seemed remote in the consideration of neoplasms of that viscus. Only within recent years has this infrequency of such lesions been shown to be erroneous, for such injuries are not uncommon, and are sometimes limited only to the pancreas. Especial interest attaches to malignant new growths which follow an injury. In order that a case be genuinely of that character, the tumor must not only develop at the place where the trauma had taken effect, but one must by a combination of symptoms bring the disturbances of the functions of that organ into relation with the tumor.

The reported instance concerned a fifty-year-old man with a history that was negative, except for an inflammation of the cecum fourteen years previously. About eight months before his appearance, he had experienced a severe fall, striking his abdomen, after which, however, he had no

inconveniences. For two months before coming for medical advice, he had complained of loss of appetite, and pains which began suddenly in the region of the umbilicus, which lasted some hours, and then omitted a few days, only to return again. There was no vomiting or icterus. This intermittent period continued for about one month, after which came an interval free from any pain. But for the last three weeks before his appearance in the clinic, the pains have returned with more severity and with occasional icterus.

On examination, a tender tumor was discovered in the right side, below the edge of the liver. Investigation of the stomach contents revealed only a slight reduction of acidity, while the other gastric functions were normal. Because the pains grew more intense, an operation was undertaken by von Mikulicz, at which a tumor was discovered, belonging either to the pancreas or to the duodenum, but nothing was done except to unite the enlarged gall-bladder to a loop of the jejunum. The patient died of pneumonia and multiple lung abscess, and at the autopsy a primary carcinoma of the head of the pancreas was revealed, with compression and invasion of the gall-duct and of the duodenum. No other secondary growths were discovered. There were also a dilated stomach, a stasis icterus of the liver, and a firm adhesion of the pancreas to the stomach.

The histologic nature and pathogenesis of the tumor formation are discussed liberally to prove the process not to be a chronic inflammatory one, as was the first impression. An attempt is also made by the author to show the causative relation of the trauma eight months previous to the development of the tumor. He cites the development of cysts of the pancreas after traumas, and brings forward as an argument for the traumatic nature of his case the adhesion of the pancreas to the posterior wall of the stomach. Failure to find traces of blood pigment in the regions assumed to have been crushed is explained by the rapid absorption of such extravasations, and data are supplied to prove this point. In addition, the gradual growth of the symptoms in a previously healthy man are easily explained by the carcinomatous growth, and with the other organs diseased only secondarily, the conclusion seems inevitable that the trauma to the abdomen was the direct incitive agent of the neoplasm.

SYPHILITIC PHLEBITIS.

Jullien (*La Medecine Moderne*) states that far from being a rare complication of this disease, syphilitic phlebitis is often noted at an extremely early stage of the affection.

He has observed a case in which the patient was obliged to go to bed on account of malaise and fever, suffering at the same time with violent pain, located in one of the saphenous veins. On examination a rash was discovered. The phlebitis proved to be the first symptom, by means of which the syphilis manifested itself. In another case the beginning of the infection was coincident with a fracture of the leg, which monopolized the attention of the physician and a phlebitis developing on the other side was not interpreted as a syphilitic manifestation until long afterwards. However, when attention was called to this side, the phlebitis served as an excellent guide for the date of contamination. Jullien thinks that this phenomenon often passes unnoticed or else is falsely interpreted.

THE EFFECT OF RAW MEAT ON NITROGEN METABOLISM IN TUBERCULOUS AND NORMAL INDIVIDUALS.

J. J. Galbraith (*Lancet*) draws the following conclusions from his investigations:

(a) Effect on metabolism: (1) When raw meat was taken, the absorption was diminished by from 1 to 2 per cent., owing to the appearance of indigestible collagen in the feces. (2) There was a marked increase in nitrogen retention in spite of the diminution in absorption. (3) On reverting to cooked meat (the collagen of which is converted into gelatin), the nitrogen of the feces diminished, and the percentage of absorption was thereby raised by from 1 to 3 per cent. above the percentage observed in the first cooked meat period owing to improvement in intestinal chemistry. (4) Superalimentation (which was tried in one case) with raw meat and beef juice did not diminish the percentage of absorption. The substitution of a similar quantity of cooked proteid produced immediate sickness.

(b) Effect on the blood: (1) A great increase in hemoglobin (falling on resuming the cooked diet). (2) A rise in the total leucocytes of from 3,000 to 10,000 per cubic millimeter, fasting. (3) An exaggeration of the digestive leucocytosis, the usual increase being doubled or trebled. The rise in the total leucocytes was not observed in normal individuals; otherwise the results were identical. The reaction might be induced to a much slighter extent by increasing the proportion of cooked proteid in the diet. The specific action of raw meat was exerted on the mechanism of nitrogen retention, reducing the combination of the absorbed nitrogen by promoting the vitalization of circulating proteid, by means of the intervention of a linking body probably secreted by the functionally active cells of the digestive leucocytosis.

ALBUMINURIA AND NEPHRITIS IN INFANCY.

Ernesto Ballico (*Rivista di Clinica Pediatrica*) calls our attention to the much greater frequency of albuminuria and nephritis in babies than is usually recognized. The infant has kidneys that are undeveloped at birth, and they must gradually accustom themselves to the demands of metabolism. The administration of unsuitable foods is a frequent cause of nephritis, and many cases of eclampsia, supposed to be due to teething, are really nephritis. Cold, gastro-intestinal troubles, bronchopneumonia, infectious diseases, skin diseases producing poisons, drugs administered, and malaria are some of the causes of nephritis. Scleroderma in infants is simply subcutaneous edema. When the mother has nephritis and eclampsia, the child has also frequently albuminuria, the poisons that affect the mother producing alteration in the child as well. In autopsies alterations of the kidneys of all grades of seriousness are found. There are cases in which the ordinary symptom of albuminuria is absent, while tube casts may be revealed by the microscope. The author advises a thorough and accurate urinary examination in all cases in infants.

A CASE OF DIABETIC COMA WITH RECOVERY UNDER ALKALINE TREATMENT.

The patient of G. N. Sears (*Boston Medical and Surgical Journal*) was a boy of thirteen years with the usual diabetic symptoms. When seen by the author he presented the usual comatose conditions incident to his disease. His breath smelled so strongly of acetone that the odor could be detected outside the door of his room. Urine in the first twenty-four hours after admission amounted to 156 ounces and contained over 5 per cent. of sugar. He was given stimulants, and eight ounces of sterile salt solution containing bicarbonate of sodium almost to the saturating point was injected under each breast. A teaspoonful of bicarbonate was dissolved in a glass of water which was given up to the limits of the patient's capacity. Large quantities of this solution were taken. His stupor rapidly decreased, but he remained drowsy for several days. Convalescence was interrupted by anemic convulsions, but the patient finally weathered the storm. In spite of large doses of alkali the urine remained persistently acid throughout. Sugar continued in the urine in varying amount. Suppuration occurred at the site of the hypodermic injections, and healing was slow. The author has collected

a series of sixteen cases in which recovery from diabetic coma has been obtained and in which alkalies and various other remedies have been employed. Alkalies seem to have yielded the best results; generally, the bicarbonate has been used. The intravenous route is undoubtedly the safest, and the stimulant effect may be of great advantage.

AN ANTIGONOCOCCUS SERUM EFFECTIVE IN THE TREATMENT OF GONORRHEAL RHEUMATISM (TORREY). THE TREATMENT OF GONORRHEAL RHEUMATISM BY AN ANTIGONOCOCCUS SERUM (ROGERS).

Torrey and Rogers (*Journal American Medical Association*) report a method of obtaining an antigonococcus serum and the results obtained with it in the treatment of eight cases of gonorrheal rheumatism, including both acute and chronic forms. Various cultures of gonococcus were used, some obtained from active infections in male patients, others from cases of vaginitis. For purposes of inoculation a mixture of asetic fluid and slightly acid beef infusion peptone broth was used in equal parts. This was distributed among tubes of 12 cc. capacity. The best results were obtained from cultures from six to fifteen days old which were killed by heating for several hours at 60 degrees C. Large rabbits were used in producing the serum and injections of 10 cc. of the entire culture were made at intervals of about four days. After six injections had been made the animal was bled, 70 to 90 cc. of serum being obtained. This was divided into quantities of 2 cc. and sealed without preservative. The serum is chiefly bactericidal, though in all probability it also contains an antitoxin.

Clinically, the serum was administered subcutaneously in eight cases of gonorrheal rheumatism in doses of thirty to forty minims, every day, or every other day. There is generally an improvement in the pain and in the inflammatory condition at the end of twenty-four hours, and a complete disappearance of the disorder in a week or ten days, when the condition is acute, but it may be much prolonged in chronic cases. There is constant danger in the acute cases of a recrudescence after suspension of the injections, particularly if the urethritis still persists. It is important to note that the urethritis is very little if at all influenced by the serum. Of the eight cases treated, only one, a case of more than ten years' standing, failed to improve under the serum treatment.

The progress under the administration of the serum depends upon the promptness.

with which the condition was recognized. After the inflammatory process has continued for several weeks, new tissue and adhesions have formed, or destructive processes may even have begun. These changes can not be influenced by the serum. The writers have found that great differences exist in the effectiveness of serum from different rabbits and of different bleedings.

EXTROPHY OF THE BLADDER SUCCESSFULLY TREATED BY PETER'S METHOD.

Harry M. Sherman, M. D., San Francisco (Journal of Amer. Med. Assn.), reports a single case of the implantation of the ureters into the rectum, and quotes several others from the literature that have been successfully performed, and which are still alive and well, four years after the operation. The method consists in the separate implantations of the ureters, with the vesical mucosa left over each orifice, into the rectum, by going down in the peritoneal space to avoid a peritonitis.

The ureteral ends are left free in the rectal cavity, and the tube is fixed only very slightly to the rectal wall. The rectum soon becomes accustomed to the urine, and is voided at first from one to two hours, and later every three to four hours. The urine usually is acid, shows some albumin and a very few crystals, but there is no sugar, and practically no feces.

An examination of the rectum shows the small tips of the ureters hanging free in the cavity. It is urged as being superior to the Maydl operation, on account of the mortality from invading the peritoneal cavity and the faulty junction between the rectum and the trigonum, and the fact that the urine is placed into the sigmoid, where the feces accumulate, and is normally retained.

THE ETIOLOGY OF ECLAMPSIA.

Liepmann (Muen. Med. Woch.) publishes the results of a very extensive series of animal experiments undertaken with eclamptic placentas. The material was minced, dried, finely powdered and injected peritoneally into rabbits. As a result of these observations the author comes to the conclusion that the placenta in eclampsia contains a poison not present in the normal structure. This poison is apparently the toxin of the disease, for the more of it the organism has absorbed, as shown by a large number of convulsions, the less of it is to be found in the placenta. On the other hand, the placenta is richer in poison the less of it has entered the maternal circulation. Apparently the chorionic epithelium plays an im-

portant part in the formation of this poison, and the placenta therefore appears to be both the site of formation and of distribution of the toxin. The toxin shows a pronounced affinity for the cerebral cells, which are paralyzed by its action and neutralize it. In addition, the poison injures the renal parenchyma, but the liver substance may also be attacked, with the formation of necrotic foci. The injury to the kidney is always a secondary consequence of the poisoning, and if albuminuria already exists it may be markedly increased by the toxin. Both theoretical and practical considerations lead to the conclusion that the best treatment for eclampsia consists in emptying the uterus as promptly as possible, for the expectant plans have given much less satisfactory results. Venesection and intravenous infusion of salt solution are valuable adjuvants, but sudorific treatment by hot packs is directly injurious. In coma or with superficial respiration artificial respiration is of great value; chloroform and narcotics should be used as sparingly as possible. The best results were obtained by chloral hydrate given in three-grain doses per rectum.

SARCOMA OF THE UNDESCENDED TESTES.

The patient of J. A. Wyeth (New York Medical Journal) was a man of thirty years. His left testis had never been felt on the inguinal canal, while the right had descended a short distance and had been complicated with an indirect inguinal hernia. A few days after marriage he was seized with a severe pain, accompanied by a swelling in the right inguinal region. The swelling was about the size of a hen's egg, was located in or anterior to the internal abdominal ring, and was tender to pressure. It was accompanied by a slight elevation of temperature which lasted for two or three days. Cold applications, with rest in the recumbent posture were prescribed, pain was relieved, and no further trouble was experienced until some four months later, when a similar attack came on with deterioration of the general health but without any distinct cachexia or other evidence of malignant neoplasm except the presence of the tumor occupying in part the pelvis and the right side of the lower abdominal cavity. Wyeth was convinced that the tumor was in the undescended testicle of that side, and performed a laparotomy for its removal. Upon opening the peritoneal cavity a mass which was oval in shape was encountered and easily brought up through the incision. Strong catgut was tied around the spermatic cord, which was divided close to the ligature. Further exploration revealed the presence of a second mass of the same general shape, occupying

the floor of the pelvis upon the left side, resting upon the sigmoid flexure of the colon. This was removed in the same way. The covering of each tumor was white and smooth and was composed of the tunica albuginea. Examination showed both masses to be large round-celled sarcoma. Four months after the operation the patient was in the best of health.

ALIMENTARY GLYCOSURIA IN INFECTIOUS DISEASES.

P. F. Zucola (Giorn. R. Acad. di Med. di Torino, 1905, No. 4; Biocb. Centralbl. IV. No. 19): In sixteen cases of infectious disease (pneumonia, typhoid fever, tuberculosis and the like), the existence of an alimentary glycosuria was investigated. In all the cases, 150 g. of glucose-syrup was given on an empty stomach and no further food given during the course of the observation. The urine was collected every hour and tested for sugar with Fehling's solution. In health and in cases of mild infection no glycosuria resulted, but whenever the infection was severe, especially if it had lasted for some time, the urine contained sugar. The intensity of the glycosuria corresponded to the intensity and duration of the infection. As the alimentary glycosuria coincided with an intermittent excretion of methylene blue which is known to indicate a lesion of the liver cells, the conclusion seems natural that the glycosuria also is an indicator of the functional condition of the liver cells. Prognostically, also, the test would seem to be of some value.

A SUPERNUMERARY TOOTH IN THE NOSE.

O. Kahler (Lancet) some time ago had under his care a man aged twenty-nine years who complained of difficulty in breathing through the nose. Several years ago the patient had a plastic operation for a defect of the lower part of the nose performed at a surgical clinic. It appeared that he had had a nasal gumma when a child, and this had destroyed a great part of his nose, which now presented the saddle shape seen in syphilitic subjects. Anterior rhinoscopy revealed a total absence of the septum nasi and the inferior turbinated bones on both sides. A hard white substance was seen lying imbedded in the floor of the nasal cavity, about three-quarters of an inch into the cavity. After careful cleansing it was recognized to be the crown of a tooth. Examination of the alveolar processes showed that all sixteen teeth, or at least their broken and carious roots, were present, so that the nasal tooth was a supernumerary one. The

extraction of this tooth was very difficult. Tooth forceps could not be used on account of the narrowness of the introitus nasi, which was rendered still more narrow and rigid by the cicatricial tissue. Dr. Kahler succeeded in loosening it by means of an elevator, but the patient suddenly jerked his head, and the tooth disappeared into the esophagus and stomach, but was passed from the bowels after the lapse of three days, during which plenty of potatoes and bread had been eaten. It was found to be most likely a canine tooth. In nearly all the recorded cases such anomalous teeth have been associated with congenital syphilis, which perhaps by disturbing the normal ossification favors displacement of the dental germs. This dental anomaly was first recognized by the famous poet Goethe, who was also a very observant man of science, and who mentioned a case of the kind in his "Journey to Switzerland in 1797," when he was studying the premaxilla.

A TEST FOR PANCREATIC ACTIVITY.

If sixty grains of salol, says The Practitioner, be given in cachets, in divided doses during twenty-four hours, carbolic acid will appear in the urine; this is due to the fact that the salol is broken up by the alkaline pancreatic juice in the small intestine. If, however, no pancreatic juice makes its way into the duodenum, the salol remains unchanged, and no carbolic acid can be detected in the urine. The most convenient tests for carbolic acid in the urine are: (1) Add to the urine which contains the carbolic acid a few drops of liquor ferri perchloridi, a violet color is produced. (2) Add to the urine a few drops of bromine water, a yellow crystalline precipitate of tri-bromo-phenol ($C_6H_2Br_3OH$) is produced. (3) If a small quantity of bleaching powder and a little ammonia are added to the urine, on heating the mixture a blue color is produced. (4) If Millon's reagent (acid nitrate of mercury) be added, a bright-red color is produced. The importance of this test is obvious, as it enables us to diagnose obstruction to the outpouring of the pancreatic juice into the duodenum.

BACTERICIDAL POWER OF THE ORGANISM.

G. Saccone (Annali di Medicina Navale) tells us that there is a natural power inherent in the human organism that destroys bacteria when they enter the body. He has made experiments on rabbits, by injections of the vegetative form of the bacillus subtilis, and also by injecting its spores into the peritoneum pleura blood and

under the skin, to ascertain the length of time it takes to destroy a given quantity of the culture or its spores. The author sums up his conclusions thus: 1. The spores and bacilli are more quickly destroyed when injected into the circulation; it takes a longer time for them to disappear from the peritoneum and pleura; the skin destroys them most slowly. 2. The bacilli are more quickly destroyed than the spores, the bacilli disappearing in two to three hours, the spores in twenty-seven to twenty-eight hours. 3. The spores are transported to some distance from the site of injection and are destroyed in the hematopoietic organs, while the bacilli are destroyed locally. 4. The bacilli and spores are destroyed extracellularly, being reduced to granules except when injected under the skin, when some are taken up by the cells. 5. The organism reacts locally by the appearance of the leucocytes of the polynuclear variety; even the blood shows a hyperleucocytosis when injections have been made directly into it, and when the spores have been introduced the hematopoietic organs also show a reaction marked by hyperemia and efflux of leucocytes.

SPRAINED ANKLE.

Robert Carothers (Lancet-Clinic) says that no one is exempt from a sprained ankle, although some are more prone than others.

Severity in a sprained ankle will range from a trivial accident to one of extreme severity and everlasting.

The outer side more often than the inner side of the ankle is the seat of trouble.

The diagnosis, which is ordinarily made with ease, is at times made with difficulty, and at times an X-ray examination is required to make the diagnosis certain.

The treatment by immobilization with a plaster of paris cast is unsatisfactory and at times injurious.

The treatment instituted by Cotteral, the so-called adhesive plaster strappings, advising and urging the patient to walk on the injured foot, the early removal of these straps, followed by massage, gives the most satisfactory and best results.

The old cases are to be under anesthesia, converted into acute sprains, and treated in the same manner.

MEDICAL GLEANINGS.

Don't forget the onion poultice when you deal with pneumonia.

Soft tumors under the skin, disappearing in the recumbent posture, are usually lymphangiomata.

Tinnitus aurium, present only in the recumbent posture, is suggestive of aneurism of one of the posterior cerebral vessels.

P. C. Gaston, in the Medical Record, recommends muriate of cocaine as an antidote in opium poisoning, and cites a case in his own recent experience.

For hysterical diarrhea, Dr. Osler advises systematic rest cure, milk or egg albumen diet; bromides or opium for increased peristalsis; change of air and surroundings.

Kelsey, in obstinate cases of pruritus ani, advises the use of the actual cautery applied at different points at successive intervals under local anesthesia.

Hard subcutaneous tumors of the upper third of the neck, with signs of malignancy, are often epitheliomata arising from branchial clefts.

When applying a plaster dressing to the leg always include the foot if the patient is to be confined to bed; otherwise "drop foot" will develop.

Houses and places infested with ants, it is claimed, may be readily rid of these pests by placing strips of blotting paper soaked in peppermint oil in their haunts. This is an easy and simple remedy worthy of a trial.

In the early months of pregnancy examinations should be made to determine that there is no retroversion or to treat it if it exists. A retroverted gravid uterus impacted in the curve of the sacrum always aborts.

Fowler's solution has proved a valuable antidote to the disturbed heart's action caused by administering thyroid extract and therefore it is a good plan to give arsenic when treating patients with any preparation of the thyroid gland.

Because they declare that in Evanston, Ill., a suburb of Chicago, living is more expensive than in the city, the physicians of the town have increased their visiting fee \$1 a visit. They formerly charged \$2 a visit.

Ammo-Phenin is recommended as a safe and reliable antipyretic, stimulant, hypnotic, analgesic and expectorant. This remedy is at least worth a trial, and the Ammo-Phenin Chemical Co., of St. Louis, Mo., offer free samples on request.

In true normal bronchitis the appetite remains. In pneumonia it is lost. This is a diagnostic sign of value. The better the appetite, as a rule, the shorter the attack. This fact doubtless gave rise to the saying: "feed a cold but starve a fever."

Prof. Viard, a chemist, fed a dog on some of the adulterated foods frequently sold to and used by man. The animal, a robust Newfoundland, is not expected to live; his stomach had not, as is the case with the human animal, been gradually accustomed to the poisonous and deleterious diet.

Hollopeter says that typhoid fever in children is recognized only about the tenth day and then only by a process of elimination. The Widal test and the Diazo reaction are of value only about the beginning of the second week, when other characteristic symptoms aiding the diagnosis are present.

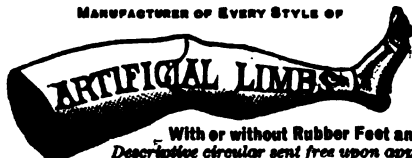
The circulation of dirty bank notes has noticeably decreased for some months past declares The New York Medical Journal. This is undoubtedly due to a growing popular aversion to filthy notes, such as has expressed itself in an increased demand on the Treasury Department for their redemption.

The instruction of physicians in the Philippines is a decided necessity, declares the Medical Record. Some 2,000 to 3,000 physicians will be needed in these islands during the next twenty years. There is a unique opportunity for the establishment of the ideal university and affiliated professional schools; and there will be no lack of earnest, capable students.

"Our observation of the medical literature indicates that echinacea is being used far more freely than formerly."—J. A. M. A., April 8, 1905. Ethol contains in each fluid drachm twenty-eight grains echinacea and three grains thuja. It is put up in bottles holding twelve ounces, and any physician who has not used Ethol can get a twelve-ounce bottle for experimental purposes by

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The Melbourne Hospital recently found "royal" to be rather an expensive little word, which the trustees thought would be an ornamental and advantageous addition to the title of their institution. The king on application readily gave permission; but then it was found that fees of \$50 would have to be paid to court officials. Then the trustees felt doubts whether charitable funds should be so expended, and had to call a special general meeting of subscribers to consider the matter.

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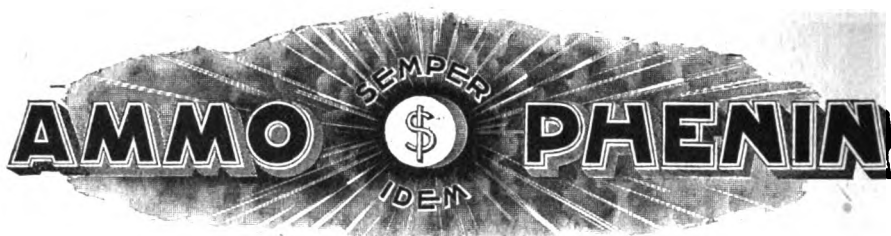
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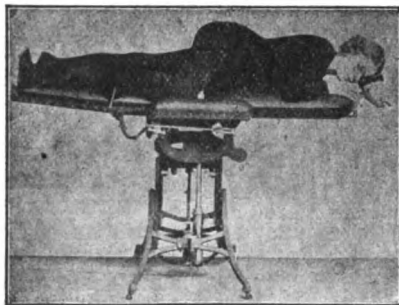
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ORIGINAL.

ACUTE CYSTITIS.

By Wm. Henry, M. D., Harmon, Ill.

Inflammation of the bladder is one which causes great suffering and distress to the patient. There may be many causes which bring it on—traumatic injuries, cold, gonorrhea; also surgical operations. The trouble begins with rigors, followed by fever, painful micturition; there is a hot burning in the voiding of urine; pus and blood follow. There will be pain in the pubic region and pain in the loins, tenderness upon pressure over the region of the bladder; the pulse during the acute stage is very much accelerated, there is thirst, lost of appetite; the urine is high colored, being loaded with pus and lymph shreds streaked with blood; there is in severe cases great perspiration, the sweats may be cold; the urine does not flow free, but comes very slow with great distress; it often becomes necessary to wash out the bladder with some mild lotion as flax seed or slippery elm water. Hot poultices over the region of the bladder are necessary; opium suppositories to allay the pain. I have tried a great many remedies for this trouble, but have found none to equal the fl. ext. of couch grass in these cases. It seems to allay the irritation, relieve the painful micturition quicker and more surely than any other remedy I ever tried, given in teaspoonful doses to an adult every hour or two. I will give a case or two to illustrate what I say. Mrs. T., who was a lady about seventy years old, had acute cystitis, caused from cold. When I saw her, she was in great distress, wanting to micturate very often, with a severe burning sensation, and only a small amount at a time. There was a physician attending her, using the usual remedies, but without success. I told her that I thought that I could relieve her; so I told her son to come with me to the drug store, as they lived in town. I procured a couple of ounces of the fl. ext. of couch grass and had her take teaspoonful doses every two hours. In less than twelve hours the pain was gone, the urine passed freely with but very lit-

tle pain; in twenty-four hours all pain and irritation had disappeared; she from then on had an uneventful convalescence.

In another case there was a severe cystitis brought on by an attack of gonorrhoea. In this case there was painful voiding of urine, much pus in the urine, the bladder was very irritable, the urine had some bloody streaks in it, there was also orchitis in connection with it. I used hot fomentations and the usual gonorrheal remedies; I also used the fl. ext. of couch grass, which had a tendency to relieve the irritable bladder, which did its work remarkably well. In such case the urine did not cause such a burning sensation; it took some time to complete a cure in this case, owing to the complication, yet I believe that the couch grass did a great deal toward hastening a cure, which was uneventful.

In another case of a female with cystitis caused by cold, there was great distress in the voiding of urine; she could pass but a small amount at a time, and every few minutes with great distress and a burning pain, I soon gave her great relief by the use of the fl. ext. of couch grass in teaspoonful doses every two to three hours.

THE EPILEPTIC AND HIS TREATMENT.*

By George T. Spicer, M. D., Providence, R. I.

At whatever age we find him, the position of the epileptic is an abnormal and unnatural one. In childhood he is a source of ever-present anxiety to his parents. If sent to school, the attacks are alike dangerous to himself and annoying to those about him. As he grows older, public entertainments and social gatherings become a vexation rather than a pleasure, and the result is only too frequently a total withdrawal from society of any kind—outside of his family—together with a tendency to morbidness and melancholia.

Very few epileptics are fortunate in being able to learn a trade. But granting that he has done so, he finds great difficulty in obtaining steady employment. His opportunity is not that of his fellows.

On my last service here, I had a young

*Read before the Rhode Island Hospital Club.
Kansas City Medical Record.

man of thirty-two under my care. He had been a machinist, more lately a shipping clerk; a faithful worker, but liable to frequent epileptic attacks. Discharged from one position after another for this reason, he remained at home, brooding over his condition. It ended finally in melancholia and an attempt at suicide by cutting his throat. He was later committed to the State Hospital for the Insane.

But it is not with the institutional treatment of the unfortunates that we now have to do, it being my purpose rather to confine myself to a consideration of their proper care and treatment at home. At the outset it may be proper to review briefly the clinical characteristics of the disease. A most excellent description of its manifestations is given by Peterson.

"The chief feature of the epileptic attack is a sudden loss of consciousness which may be complete or incomplete. Generally it is accompanied by spasms. The type of epilepsy most familiar to laymen is that known as 'le grand mal.' The patient falls in an unconscious state, often giving a sharp cry as he does so, and goes into a convulsion lasting a few minutes or longer, rarely more than five minutes. The epileptic has such 'seizures' or 'attacks' of spasms at variable intervals, sometimes frequently every day, sometimes only once weekly or once monthly, and sometimes only two or three times in a year. There is no regularity in their onset, and this unexpectedness or unpreparedness is one of the most trying features of the malady. The attack comes like a flash of lightning from a clear sky, constituting therefore a grave danger, in that the patient may be near a declivity, over deep water, close to a fire, or in some other position where a seizure may lead to serious injury or accidental death. After the spasms have passed, the patient is in a somewhat dazed state and is apt to sleep for a half hour or so. Then he rises and goes about his duties as before.

"A less common and familiar form of epilepsy is that known as 'le petit mal.' In this, consciousness is also lost, but ordinarily only for a second or two. The patient does not fall as a rule and has no spasm, but his face may twist to one side or his hand perform some automatic act.

"Not infrequently, epileptics have some warning of an approaching attack. They have a queer feeling in the stomach, chest or throat, a dizziness in the head, a flash of light before the eyes, a sensation in one of the arms or legs, or some other sign with which they become familiar as a warning of the onset of a fit. Occasionally this warning is sufficiently prolonged for the patient to call to some one or to seek a place to lie down.

"As the patient falls his face is pale, but when the spasm begins, the face grows dusky and red and the veins distend as the blood rushes into the head. The breathing becomes slow and difficult, owing to the spasm in the muscles of the chest; and noisy, snoring or stertorous, from spasm in the muscles of the throat. The teeth are clinched tightly and the saliva in the mouth is made into froth at the lips by the struggle for air. If the tongue is caught between the clinched teeth, as is not unusual, the froth is apt to be bloody. Frequently there is involuntary evacuation of the bladder or bowels.

"There is a peculiar automatic or sub-conscious state observed at times in epileptics either before or after an attack. The patient acts as if he were in a dream and may perform quite complicated acts without consciousness of what he is doing—such acts being at times harmful to himself or others."

The therapeutics of epilepsy was, until comparatively recently, based upon thoroughly unscientific principles and in the light of even our meagre present-day knowledge of the pathology of the disease, most of the remedies guaranteed as cures seem indeed absurd. The resources of *materia medica* appear to have been exhausted or rather extended in order to include the most extraordinary and repulsive concoctions. Letchworth has gathered together a long list of such, and among them may be mentioned—to show how far men of intelligence may go—a prescription compounded of certain roots and the skull of a criminal who had suffered capital punishment, said to have been a popular remedy as late as the eighteenth century. Also a preparation of earthworms and a human skull, prescribed as a remedy by the physician of King William III; rum, in which snakes' heads had been steeped; wheat flour mixed with dew gathered on the morning of St. John's day, and made into a cake; and a powder made from the burned remains of magpies. These, says Letchworth, were held at one time to be valuable. As a preventive of epilepsy, coral powder mixed with nurses' milk and given to an infant soon after birth, was a common prescription, according to the same authority.

In considering the modern therapeutics of epilepsy, it should be laid down as a foundation principle that every case requires a most thorough and searching investigation. Every possible source of reflex irritation must be excluded if possible, for the removal of such, where present, leads not infrequently to a cure in a case apparently hopeless.

Our point of attack should be the individual convulsion. This is a matter of the greatest importance, for, as one has said, the seizures after a time become a habit of

the body. The cause may be removed, but the habit continues. Therefore every attack prevented is a step toward cure.

In a recent article, Brower, of Chicago, notes that in the pathogenesis of epilepsy, we have to deal with (1) autointoxication, (2) increased irritability of the nervous system, (3) deficiency of vasomotor tonus and circulatory capacity, and (4) cerebral sclerosis; and that in marking out our line of treatment we must consider in due proportion these four factors, even though it is possible that the first factor is the foundation of the other three. In the majority of cases, says Brower, this autointoxication has its origin in the gastro-intestinal tract and to minimize this there must first be a careful regulation of diet. For, in a way, the dietary of epilepsy is as important as its drug treatment. Every case, however, must be studied separately and individually in regard to the digestive capacity. Routine must be avoided, for the patient will cease to follow instructions, or if one special diet is faithfully followed (which is rare), the monotony and loss of appetite soon bring about a return of the digestive symptoms. This point is strongly emphasized by Clark, of New York, Consulting Neurologist to the Craig Colony of Epileptics, who speaks also of the grave dangers consequent upon leaving the dietary largely in the hands of the patient. It is interesting to observe that the old and well-worn rule to exclude meat entirely is not enforced by recent writers.

James J. Putnam, of Boston, teaches that the nearer we approach to bread and milk the better. Vary with a few eggs and a little fruit. He would avoid meats so far as possible, and prohibits tea, coffee and all alcoholics. This is a standard difficult to live up to or to enforce, and many compromises are necessary in the average case.

Another point of importance that should be looked to is the condition of the stomach itself. It is not rare to find a distinct deficiency of the muscular tone, also varying degrees of dilatation. In such cases repeated gastric lavage is invaluable. Constipation, too, is a very common condition and must be treated with cathartics, with the addition, if needed, of intestinal antiseptics. Salol gives very good results.

The second indication—the increased irritability of the nervous system—is best met by the use of the bromides, Brower recommending the sodium salt as being less depressing to the circulation and less disturbing to the digestion. He does not favor the mixed bromides. Putnam, however, prefers the mixed bromides, and the bromide of potassium to any other single form.

With regard to the appropriate dose, we must study each case, observe the individual susceptibility to the medicine and regulate the treatment accordingly. It is to be noted

that children are generally very tolerant of the bromides and will often bear nearly as large doses as adults. Females usually require less than males.

Yeo, of King's College, London, commences with small doses, fifteen to thirty grains three times a day for adults and gradually augments the dose until the amount needed to suppress the attacks is reached.

Gowers maintains that if thirty grains three times a day do not produce arrest, larger doses are seldom successful. Some give rapidly increasing doses until anesthesia of the palate and pharynx is induced, which takes usually about three weeks, and then the dose is decreased. Some French authorities consider the dose should be pushed till the attacks disappear, even up to five or six drams a day.

In Putnam's method of administration, he employs a mixture of two parts of potassium bromide and one part each of sodium and ammonium bromide with one part of benzoate of sodium. Taking then fifteen grains of this mixture as a unit of dosage, he gives two units (or thirty gr.) in that part of the twenty-four hours preceding the accustomed onset of the attacks. A single unit or fifteen gr. is given some twelve hours later, making a total of forty-five gr. daily. This routine is kept up for one week. The following week another unit is added, the usual proportion being maintained of two-thirds the daily dose just before the expected attack. The patient thus gets sixty grains daily during the second week. For the third, he has seventy-five grains daily. On reaching the fourth week, we drop back fifteen grains, and now having dropped back one dose, we increase again for three weeks, again lessen, and so on. The limit is reached when the pupils are constantly large and less responsive to light; the patient, too, must not be made too dull.

In this connection, it is important to guard against the excessive use of the bromides. Epileptic insanity is reported to be vastly more frequent to-day than it was before the introduction of the bromides in the treatment of this disease, but it is the excessive use that produces this result. Brower considers that sixty grains a day is a quantity that should seldom be exceeded, except for a special reason and then for a short time only. It is well known that when saturation of the system has been reached, if the dose is not diminished, the most unpleasant symptoms of bromism appear. The skin is cold, clammy and covered with acne; there is complete anesthesia of palate and pharynx, the action of the heart is feeble and hurried; there is great impairment of memory, mental confusion, and hesitating speech; and, together with these symptoms, bronchial and gastric catarrh may appear. A state of dementia occasionally follows.

When such appear the medicine should be stopped or the doses greatly diminished. The appearance of acne alone must not be regarded, however, as a sign of saturation, as it is noted not infrequently after quite moderate doses. It is best avoided by giving the drug largely diluted with some alkaline water, such as vichy, and by combining it with full doses of Fowler's solution at irregular intervals.

The constitutional effect of the bromides is increased by cutting out the chloride or sodium as much as possible from the diet. Cases that resist the bromides alone will sometimes yield by adding acetanilid to the treatment.

The third indication, the circulatory and vaso-motor defect, can be met often by the use of strychnia, but in larger doses than usual to secure the best results, according to a recent writer, who reports a case with pronounced symptoms of bromism, in which the withdrawal of the bromides and the administration of strychnia in increasing doses, until gr. one-twelfth was taken every eight hours, caused the attacks, which had been daily, to gradually cease.

The last indication—cerebral sclerosis—calls for the iodides, which diminish the rapidity of its development and increase the activity of the bromides. It can be added in small doses to the treatment outlined above.

The important point in the treatment of idiopathic epilepsy is to avoid so far as is possible the untoward effects of the sedative treatment and yet maintain the proper rest and quiet of the cerebral cortex. It is by no means a simple problem. But granting that it has been successfully solved in a given case, the next question which arises is, how long is it desirable that the use of the bromides should be continued after the convulsive attacks have ceased to recur? Certainly for two to three years, the dose being reduced during the third year. This is the plan followed by the most experienced authorities.

Too much stress can not be laid upon a proper hygiene: Regular, out-of-door exercise and sufficient, congenial occupation should be insisted upon, for nothing else tends to build up the epileptic so rapidly. His mind is drawn away from himself and his disease, and interest in life and affairs about him takes the place of constant fretting and worrying.

A single word only with regard to the surgical treatment. It should be remembered that the mere performance of an operation, in this as in many other diseases, is of itself sufficient to produce great relief, at least for a time the influence being doubtless psychic. But most authorities agree with Gowers in thinking "the operation of

trephining unjustifiable in all cases of true idiopathic epilepsy." On the other hand, if the fits are known to be traumatic in their origin and the injury is over a known center, the situation is entirely altered.

Before closing, I should like to mention briefly a case which I have followed for the past six years. The patient, a boy of sixteen, had been, up to that time, perfectly well and healthy. Without traumatism or any known cause, epileptiform convulsions set in. They were first noticed by the family during the night, the patient knowing and remembering nothing of them. They occurred on an average about once a month, but before a year had passed their frequency increased, the interval rapidly diminishing until from twice a month, once a week, or twice a week, the patient suffered an attack once a day. The time of their occurrence was now in the early morning, with great regularity—soon after waking, but before the patient was up and dressed. He would lie there perfectly calm and quiet, but as regularly as the clock struck eight, the family were prepared to hear the warning cry. The habit, if such it was, was established and he began to be ill at other times in the twenty-four hours. I never knew him, however, to have more than three or four such seizures daily.

The patient's condition was now pitiable. He never felt sure of himself and his nerve was being rapidly destroyed. A bright fellow, a good student, he could not read or concentrate his attention on any one thing for any length of time. He suffered greatly from indigestion—in fact his aura was in the epigastrium, and the slightest indiscretion in diet brought on an attack.

Not quite three years ago the family, who were beginning to despair of the case, gave permission for a complete change of treatment. The method employed has been already outlined. The simplest diet, small amounts and frequently (and here I want to say that the steady co-operation of the patient was of the greatest value), careful regulation of the bowels and kidneys, cold baths and much out-of-door exercise. Mental work was given up except for very short periods. In fact, for the past two years, he has practically dropped the old life. He went West not long ago and is now living a free, out-of-door existence. I name these points before the medicinal treatment because I believe them to be of fully equal, if not greater, importance in such cases than the bromides. As to the latter, eighty grains of the sodium salt daily soon brought about a marked increase in the length of interval between attacks, and was maintained for perhaps a month, two-thirds of the dose being taken on retiring. This quantity has since been greatly reduced. He

now gets but twenty-five gr. in the twenty-four hours, and has not had an attack for fourteen months.

But better than this is the complete change in the patient. He has gained in weight, is enjoying perfect health and takes pleasure in his life and work. The habit, the susceptibility to attack has been interrupted. He is truly another man and is already engaging in considerable mental work, writing and studying.

We can not call him cured, for it is too early for that. "No epileptic," says Brower, "can be regarded as such until there has been at least five years intermission in the epileptic manifestations."

A FEW USEFUL DIURETICS.

By John Albert Burnett, M. D., Cecil, Ark.

Diuretics are a class of remedies which to a certain extent are somewhat neglected by most physicians. This class of remedies are of more value than most physicians suppose.

Potassium nitrate is an old remedy, and one that has somewhat dropped out of use. But if it possesses the anti-malarial properties which has been recently claimed for it, it will soon become a very useful remedy in malarial districts.

Dr. Frank P. Davis, of Agra, Oklahoma, uses potassium nitrate in fifteen grain doses to keep off chills. He gives three doses to keep a chill off, one dose three hours, one dose two hours and one dose one hour before the chill is due. If this should fail to keep off the first and second chill, Dr. Davis then uses a combination of quinine and spinitros. dulc. Recently I made a mixture of quinine bi-sulphate and potassium nitrate and expect to try it in malaria. In each drachm of water I put two grains of quinine bisulphate and five grains of potassium nitrate; it makes a good solution of a somewhat blue color, and no sediment forms. It does not taste as bitter as a solution of quinine alone, and the taste does not stay in the mouth as long. I am of the opinion that it can be kept on hand a long time without being injured by age. I shall use this in drachm doses to keep a chill off. Give six or eight doses, one hour apart, beginning so the last dose will come one or two hours before the chill is due, at other times give one drachm every three or four hours. The diuretic properties of potassium nitrate are not strong enough that it gives much results in dropsy.

Jeffersonia diphylla (twin leaf) is a very important diuretic, also a diaphoretic and antispasmodic. It has been used with success in dropsy.

Sodium bicarbonate is not a diuretic of

much value, but it is claimed that it will relieve excessively acid urine which produces great irritation and burning in cases of nephritis. If it will relieve the urine in this condition of its burning and irritating condition in nephritis, it would surely do so in other conditions. This condition is very often met in women, and sodium bicarbonate is worth a trial. I will state here that a combination of sodium bicarbonate leptandra and myrica cerifera will render the alimentary canal alkaline, and act as an intestinal antiseptic, and is of much value in various diseased conditions.

Boric acid is of some value in some kidney troubles. I saw a seven months' girl in which the urine would raise little blisters on the vulva and legs if the diaper was allowed to stay on hardly any length of time after urinating; sprinkled zinc oxide on the places and gave boric acid internally. The next time I saw her, I found that the places had dried up and no more blistering had occurred. I saw that one writer had cured all of his cases of enuresis with a combination of boric acid and salol, I tried potassium nitrate for a woman whose urine would almost set her "a fire" with but little results.

Santonin is said to be a useful diuretic. It is used with good results in young infants who do not pass their urine. I am now trying it for a woman whose urine seems to burn and cut her when she passes it, but have not heard from her since I prescribed.

All of my cases of burning urine, cutting urine, etc., have been women and girl children. One case, a girl six years old, who could not pass her urine on account of it burning, I examined the urethra and genital organs closely and could not detect any irritation. She had not urinated but a very little for several days. I gave her a rectal injection of hot salty water, and when it passed she urinated freely and did so for several days, when she got in the same shape again. I examined her again, and could not find any local irritation; gave her another rectal injection of hot salty water and she was not bothered any longer, I give her myrica cerifera internally; she had the fever and was very anemic.

Watermelon seed used by infusion is a very good diuretic. I have found it very useful for new born babies who do not pass their urine.

I have often heard writers say, "Let the kidneys take care of themselves," but I do not agree with them; it is a good plan to look closely after the conditions of the kidneys; it is my opinion that the kidneys will be a hobby with the profession in some future time, as the liver is at the present time.

The skin should always receive due atten-

tion, as well as the kidneys. If a physician will always look after the skin, kidneys and liver and keep them active, sustain the nervous system and enrich the blood, he will do good work in many diseases.

GASTRIC DYSPEPSIA.

By Dr. H. M. Marsh, Auburn, Ky.

The practice of giving artificial digestants and predigested foods has become very common of late, and although there are some conditions in which this is necessary, the too frequent or too long continued use of these articles is not without its evil consequences.

During some acute diseases there is practically an entire suspension of the secretion of gastric juice; and when it is deemed necessary to give nourishment in these cases a predigested food is absolutely required. But in ordinary cases where the gastric and intestinal secretions are merely scanty, it is much better to give a drug that will gently stimulate these glands to action. An unused gland, like an unused muscle, will soon lose the power of performing its proper function, and the predigested foods will have to be continued during the remainder of the patient's life.

Many cases of gastric dyspepsia which are attended with fermentation of the food and vomiting are relieved as soon as the gastric juice begins to be secreted in proper amount. When this function can be maintained the giving of antiseptics is entirely unnecessary.

One of the most efficient drugs for stimulating secretion is seng. I have used it now for some time with uniformly good results, and will append the notes of one case to illustrate the class of cases in which it is most efficacious and the way in which it acts.

Case. Mrs. A. C., age, thirty-four. This patient first consulted me on December 14, 1905. She is the mother of two children, and had been an unusually healthy woman until about seven months previous. Her youngest child was then about five or six months old. When I first saw her the patient was pale and emaciated, and very weak. Her tongue was coated a yellowish white with a brown streak down the center; her breath was very offensive. She told me that her appetite was poor, and that she craved only salt food. She drank a great deal of water; her bowels were habitually constipated. About an hour after each meal she usually experienced a violent attack of gastralgia, which was followed by violent nausea and vomiting of the stomach contents. This consisted of the food that had just been eaten, together with a great quantity of tough, stringy mucus.

Treatment: Gave her two full doses of the phosphate of soda, and followed this with a dessertspoonful of seng; the latter to be taken immediately after each meal. The effect of this was excellent; her symptoms rapidly disappeared, her appetite returned, and in less than two weeks she was completely cured and was gaining flesh rapidly.

ABSTRACTS AND SELECTIONS.

CHRONIC GASTRITIS OF LONG STANDING, WITH PERIODIC ATTACKS OF MIGRAINE.

Geo. A. Curriden, M. D., of Chambersburg, Pa., in the Medical Summary, writes: "The herewith reported case is one of double interest inasmuch as the patient has been under my care for a number of years, and previous to the commencement of the present treatment I have been unsuccessful in affording much relief or preventing the recurrence of the frequent and periodic attacks of migraine, to which she had been more or less subject to since early womanhood. The cause of which I could not account for more than "a habit long continued," aggravated by gastric catarrh.

"The history of the case is briefly as follows: Mrs. A., aged 55, since early womanhood has been subject to periodic attacks of migraine at intervals of two, three or four weeks, but seldom free from them for longer intervals.

"An attack comes on by general malaise of usually a day's duration, repugnance of food or drink, marked drowsiness, much depression with request for rest and quiet, followed by complete physical prostration, dull frontal headache, which the least noise or disturbance makes the more intense, invariably accompanied by violent and frequent attacks of vomiting and retching, inability to retain any food or nourishment of any kind, retention of bowels, often cold sweats, pulse somewhat slow and weak and small in volume. This condition lasting usually two days, followed by gradual cessation of symptoms.

"During the whole period of usually four or five days' duration, she is unable to take nourishment of any kind, remains constantly in bed, and desires only complete rest and quiet. The previous treatment has been so varied and on so many different plans that I refrain from mentioning them.

"Two years ago I was able to prevent an attack for over two months by the use of strychnine in 1-20 grain doses t. i. d. with careful diet and artificial digestives.

"In May, 1895, I put her on Charles Marchand's "Glycozone" treatment in teaspoon-

ful doses well diluted t. i. d., using this as all other previous remedies experimentally; she commenced to improve much in general health, an unusually good appetite, without the previous distressing symptoms following, a more regular movement of the bowels, freedom from headache and in every way a decided improvement; this improvement and enjoyment of good health lasted during continuation of above treatment for over three months. Unknown to me she stopped taking Glycozone, thinking herself perfectly well. In a few weeks had a return attack, milder and devoid of gastric distress. A similar attack two months later, both of which occurred some weeks after stopping of the above described treatment, and I might say caused by imprudence in diet.

"The conclusion come to, in this case, is that the headache is sympathetic; that the stomach becomes acutely inflamed by its inability to naturally and properly perform its functions, and responds to the call of nature to unload itself, and thus secure for a time rest, that the use of Glycozone has corrected the existing gastritis, and by so doing has removed the primary causes of these many years of suffering."

CONCERNING THE CAUSE OF GALL-STONES.

Edwin Beer (American Journal of the Medical Sciences) says that Naunyn's factors—stagnation of bile plus inflammation of the bile-passage mucosa—do not seem to be sufficient by themselves to lead to gall-stone formation, even though the time allowed for the working of the causes be adequate. The writer's first series of cases show that these two factors lead to stone formation in patients who previously had gall-stones. In this series there is the first real evidence of the factors underlying gall-stone production and the causes of cholelithiasis in human beings, the third factor being a faulty hepatic metabolism. When this exists stones are formed. In its absence they are not produced, even though the first two factors are present.

PRURITUS ANI, WITH SPECIAL REFERENCE TO ITS LOCAL TREATMENT.

Lewis H. Adler (Amer. Medicine) states in his experience that the male sex has been affected in about 95 per cent. of cases. In nearly all of the cases the patients were more or less neurotic, and in the major portion of a decidedly bilious temperament. The cases demand the removal of all exciting causes, and regulation of patients' habits of life should precede and

attend local treatment. The latter consists in the daily injection into the cavity of the rectum of from one to two and a half drachms of the following mixture:

Fluid extract hamamelis, 1 fluid ounce.

Fluid extract ergot, 2 fluidrachms.

Fluid extract hydrastis, 2 fluidrachms.

Tincture benzoin comp., 2 fluidrachms.

Upon the first visit, if the perineal skin is dry and tough, the entire surface should be painted with a concentrated solution of silver nitrate (960 grains to the ounce). This may require repetition several times at intervals of a few days to restore the skin to normal. After this is accomplished the full-strength citrine ointment is to be applied and renewed daily for the first two or three weeks, and thereafter on alternate days or twice a week. This method of treatment may extend over a period of six months or even longer, but in the author's hands it has proved uniformly successful.

MUSCULAR ATROPHY OF THE ARAN-DUCHENNE TYPE OF SYPHILITIC ORIGIN.

Lannois (Nouvelle Iconographie de La Salpetriere): The role of syphilis in the causation of muscular atrophies has been much disputed until Raymond in 1893 reported two cases, one with autopsy in which the specific origin was not to be disputed. In the case here quoted the syphilitic history is not in doubt. A man aged 47 years developed an atrophy of the muscles five years after the primary infection. The type of the atrophy was a typical Aran-Duchenne, with, however, a surprising retention of muscular strength. Under an anti-syphilitic treatment with subcutaneous injections of mercury, a very marked improvement was obtained. The author takes this occasion to emphasize the importance of treating syphilis of the nervous system by the injection method and not to waste time by inunctions and internal medication.

CARCINOMA OF THE BRONCHUS AND LIVER, ASSOCIATED WITH GLYCO-SURIA IN A YOUTH.

Geo. Hall and R. H. Tribe (The Lancet): A boy of seventeen years was admitted to the University College Hospital, with cough, shortness of breath and loss of weight. The past and family histories were negative. He first noticed the cough about three months before admission and expectorated large amounts of bloody sputum. A month before he was admitted he began to complain of itching and developed an unnaturally great appetite and thirst. Then the amounts of his urine increased. A few days before ad-

mission his hands and legs began to swell. On admission he was pale, thin and cyanotic. Temperature 100.6 degrees F. Both legs were covered with gangrenous purpuric spots. There were several edematous swellings on the trunk. The liver was enlarged. There was marked bronchial breathing. He had diarrhea. The urine was loaded with sugar and gave a faint reaction for diacetic acid. He died suddenly the day after admission. The bronchus of the lower lobe of the left lung was the seat of a columnar celled carcinoma. There were smaller areas in the upper lobe. The liver showed many large nodules with softened summits. There were small deposits in the retro-peritoneal glands and the posterior cervical glands.

DISTURBANCES SUSTAINED BY TELEPHONE OPERATORS AFTER ELECTRIC SHOCKS.

Wallbaum (Deut. Medic. Wochenschr.): According to the powers of resistance and the nature of the accident, there will be fainting, clonic convulsions; attacks of weeping, swelling of the extremities, especially on the injured side, and disorders of sensation. Following upon these first symptoms severe headaches and dizziness appear, as well as erratic neuralgic disturbances which are most prominent during cold or stormy weather. There may be also cramp-like abdominal pain, hemiplegia, vasomotor paresis and other evidences of nervous exhaustion, such as the loss of power of mental concentration. Cardiac weakness is present in all cases—irregularity of the pulse, precordial pain, palpitation, etc. The prognosis is bad with regard to the resumption of telephonic work; otherwise great improvement may be obtained. The treatment consists of suggestion, static electricity, massage and baths. Faradism and bromides are to be avoided. Applicants for these positions should be examined with great care—such as have in their family history mental disorders or nervous diseases should not be engaged; and those whose parents have died of a severe chronic malady should be tested with especial care as regards the nervous and vascular systems.

THE RECENT EPIDEMIC OF INFANTILE PARALYSIS.

B. Burnett Ham (Australasian Medical Gazette) discusses the epidemic of infantile paralysis in Queensland, and contrasts the features of anterior poliomyelitis with those of meningitis. Epidemics of cerebrospinal meningitis are frequent and the mortality is high; with anterior poliomyelitis the epidem-

ics are rarer, the mortality is slight, but the permanent injury is great.

The onset of cerebrospinal meningitis is with headache and low temperature, followed by a tonic contraction of the muscles. In infantile paralysis, on the other hand, the onset is sudden, with high fever and a flaccid paralysis, vomiting, diarrhea, and sometimes convulsions. In anterior poliomyelitis the paralysis is much more extensive on the first day or so than later in the disease. The specific organism causing anterior poliomyelitis has not been found.

The pathology is an acute inflammation followed by degeneration in the region supplied by one of the branches of the artery of the anterior median fissure and simulates the conditions found after thrombosis in the brain. The most frequent site of the lesion is the lumbrosacral region. The prognosis is good, as to life, but bad as to complete recovery. The disease should be treated at the onset with the nitrites to lower the blood pressure in an attempt to reduce the amount of inflammation. Later, muscle massage and training are necessary.

CLINICAL INVESTIGATION OF THE DIGESTION OF THE INSANE.

D. M. Murray and F. A. Inch (American Journal of the Medical Sciences) conclude that in states of mental depression (mencholia) hyperacidity is the rule, occurring in 71.4 per cent. of von Noorden's fourteen cases, 81.8 per cent. of the writers' twenty-two cases, or in 77.7 per cent. of all cases. Males and females are equally affected. This hyperacidity is due to a true hyperchlorhydria. Hypertotal acidity also occurred in the writers' cases, and in this respect they correspond exactly with those reported by von Noorden. The hyperchlorhydria is of moderate degree, is fairly constant, and is associated with increased peptic power and rapid evacuation. The increased secretion is due to the neurosis or psychosis and not to proliferative changes in the glands, as is evidenced by the presence of increased secretion associated with degenerative changes in the glandular elements, and of the entire mucosa. The evacuation of the stomach is usually normal or somewhat hastened after the Ewald test breakfast, while after the large stimulus of the Riegel meal and ordinary asylum meal it is more often hastened. In the cases showing hyperchlorhydria the peptic value is never below normal and is often increased. Many of the insane suffer from various forms of gastrointestinal disease. These conditions are frequently overlooked. The writers urge the necessity of examining systematically in these cases the secretions and

functions of the body, including the stomach contents. The signs of disease in the insane are almost entirely objective, and thus it is essential to make use of every modern method of value in diagnosing the disease. Cancer and gastric ulcer may often be recognized at the beginning. It is not improbable that the mental symptoms in these cases will proportionately decrease with proper treatment.

METABOLISM OF THE CARBOHYDRATES.

Ferannini (*Riforma Medica*) studies the intermediate products of the destruction of sugar in the body and the various carbohydrates occurring in diabetic urines. He found that in order to study glycosuria in diabetes, one must employ three methods; polarization, reduction and fermentation, in order to obtain accurate results; for these three methods mutually complement each other, eliminating the respective errors of each and bringing out the presence of substances which do not possess the simultaneous powers of reducing, polarizing and fermenting. In using the methods of reduction, we must remember that there are present in the urine many reducing substances which are not sugars, and that the various sugars do not possess the same reducing powers. In using polarization we must remember that the urine contains substances polarizing to the right which are not sugars; saccharine substances which reduce, but do not polarize, as the pentoses; and that the various sugars possess different degrees of rotary powers. Some sugars in the urine do not ferment, and those that do ferment develop different amounts of carbonic acids. In fact, the same amount of the same sugar may develop different amounts of carbonic acid, according to the conditions under which fermentation is going on.

A CASE OF TRACHEAL STENOSIS FROM PAPILLOMA.

Geo. E. Brewer (*Medical News*): A boy of eleven years had extensive papillomatous disease of the larynx that progressed so rapidly that a tracheotomy was performed. After the laryngeal growth was removed the dyspnea returned when the tube was removed. Some time later an incision was made from the body of the hyoid bone to the sternum. A new tube was inserted and the larynx and trachea were opened by a median incision. Cocaine and adrenals were at once applied to the mucous membrane. A large papillomatous mass was found just above the old tracheal opening. This was removed. A large rubber tube was placed in

the trachea through the mouth. The cannula was removed after thirty-six hours. Recovery was rapid and complete.

TOXIC AMBLYOPIA DUE TO COPPER.

Jean Galezowski (*Recueil d'Ophthalmologie*) reports this interesting case. The patient was a man fifty-seven years old; for seven years he had suffered from clouded vision. His pupils reacted slowly to light. When he was examined he showed all the signs of toxic amblyopia. The cause was discovered with some difficulty. He worked in the fields by day, but it was learned finally, that at night, in order to eke out his income he played sometimes for many hours on a musical instrument. The mouth-piece, originally silvered over, was made of copper. His two upper median incisors were covered at the border of the gums with a greenish substance. He had played upon this instrument since he was twelve years old. In this way he had absorbed a quantity of the copper. This may have occurred both through his lips and by means of his hands as well; for while holding the instrument he perspired freely and then ate his food without washing his hands. He drank very little, neither did he smoke much. He seemed to be saturated with copper since his teeth and gums were covered with it and his hands impregnated with it. For some years he had suffered from violent gastric pains which were probably due to the copper intoxication. It must be admitted that copper may exert over the optic nerve the same influence as alcohol, tobacco and lead.

A NEW (?) ANATOMICAL STRUCTURE.

Under this title, G. D. Hough (*Boston Medical and Surgical Journal*) refers to a fold of peritoneum in right iliac fossa which is a guide to the apex of the cecum and to the base of the appendix. It begins at a rather indefinite place not far from the anterior superior iliac spine and runs transversely, right straight across the iliac fossa, to the cecum to which it is attached just at the base of the appendix. It is half an inch to an inch high and slants upward toward the liver like a fence blown half way over by a heavy wind. It is on account of this slant, in all probability, that it is not a well-known landmark. The reason is obvious. Most surgeons, after opening the abdomen, use the index finger of the right hand for exploration and with this finger the fold can not be easily felt unless (which seems to be rather unnatural) one begins above and passes the finger down along the iliac fossa. If, however, one uses the left index finger for

exploration and, with the palm of the hand turned toward the feet of the patient, sweeps along the floor of the iliac fossa, the first thing one strikes is this peritoneal fold. It is followed up, it leads at once to the apex of the cecum and base of the appendix; the finger naturally hooks under the longitudinal band, and the cecum can be pulled out. Hence under ordinary circumstances the incision need be only large enough to admit one finger.

THE HYOSCIN TREATMENT OF DRUG AND LIQUOR HABITS.

Harrison G. Wagner (The Cleveland Medical Journal) recommends the use of hyoscin hydrobromate in average doses of 1-200 of a grain combined with 1-600 gr. atropin sulphate and 1-150 gr. strychnin sulphate in the treatment of morphine and cocaine habits and habitual drinkers.

The treatment necessitates a special nurse day and night, inasmuch as the patient is intentionally kept in a state of mild delirium for a period varying from thirty to ninety-six hours. The dosage varies with the patient, but it is repeated every two to six hours as indicated by dryness of mouth, dilation of pupils and delirium.

Sleep is not usually produced. When the patient is allowed to emerge from the influence of the hyoscin he soon develops a vigorous appetite, sleeps soundly after the first two or three nights, regaining his normal vigor and weight in the course of a month. Too few cases are reported to make this article of more than passing interest, but as a large number of observers have recently tried the same method, we shall, no doubt, soon have reliable data at our command.

CONCERNING THE CAUSES OF GALLSTONES.

Edwin Beer (The American Journal of Medical Sciences) states the objects of his paper to be: First, to indicate a new method of investigating a very difficult problem, the causation of gallstones, and to show what results the new method of investigation has borne in his hands; second, to interest the members of the society, who are in a position to examine organs derived from a large number of autopsies, in this method of investigation, so that more cases may be brought together and studied, and the correctness of his data be verified or denied.

While admitting that the theory of Naunyn, which holds that the stagnation of bile, together with infection and inflammation of the bile-ducts produce gallstones, independent of non-local conditions, has been proven by experiments on animals, yet he

questions if a third factor does not play a part in the human subject. As a reason for this question, he cites twelve autopsies held by himself, in which an obstruction of the common duct had existed more than four weeks with more or less inflammation of the extra and intrahepatic ducts. In seven cases the obstruction was due to calculi, and in all of the cases stones formed in the liver-ducts. The other five cases presented apparently the same conditions, except the cause of the obstruction was a tumor, and yet no stones formed in the liver-ducts. Hence the question, Does not a third factor enter in the formation of calculi?

Dr. Beer advances the theory that perhaps a faulty hepatic metabolism underlies the formation of gallstones. In closing, he summarizes as follows:

1. Naunyn's factors—stagnation of bile plus inflammation of the bile—passage mucosa—do not seem to be sufficient by themselves to lead to gallstone formation, even though the time allowed for the working of the causes be adequate.

2. My first series of cases shows that these two factors lead to stone formation in patients who previously had gallstones. In this series we have the first real evidence of the factors underlying gallstone production, and the causes of cholelithiasis in human beings.

SYPHILIS OR LOCOMOTOR ATAXIA.

Dr. J. A. Flexner (Am. Pract. and News) cites cases which have been under his care in which he has used antisyphilitic remedies and seen decided improvement. Locomotor ataxia is regarded as a syphilitic condition, and when the diagnosis is made sufficiently early and before hopeless destruction has taken place, they are practically cases of syphilis of the cerebro-spinal axis and are amenable to the vigorous use of mercury and iodides, a therapeutic necessity in the treatment of later manifestations of syphilis in any part of the body. The error of mistaking these cases in early stages for rheumatism can be avoided by making a careful examination.

PSEUDOTUBERCLE BACILLI IN THE DIAGNOSIS OF TUBERCULOSIS.

Mezincescu (Deut. Med. Wochenschrift) says that as time goes on it is being realized with greater and greater conviction that the sources of error in the morphological diagnosis of tubercle bacilli are very numerous. The number of acid-fast bacilli that give the same staining reactions as the tubercle bacillus is constantly being increased. He describes a case in which smears made from

an ulcerating tumor of the cheek revealed large numbers of bacilli which in their staining properties and morphology closely simulated true tubercle bacilli. On making sections of the growth, however, it was discovered that it was an epithelioma. Further investigation of the bacilli showed that they were completely decolorized by the action of absolute alcohol. The author concludes that they were smegma bacilli in this unusual situation. He also points out the fact that in smears of true smegma bacilli, certain organisms have been found which were not decolorized by absolute alcohol, and in all respects correspond closely to the characteristics of the paratubercle bacilli.

CARCINOMA UTERI—OPERATIVE TREATMENT.

The article of Rannenstieb (Berliner klinische Wochenschrift) is a comparison of the abdominal and vaginal operations. Each of these operations has its proper limits, and the difficulty is to define these.

The general rule is that the more malignant tumors should be operated on from above and the less malignant from below. Tumors involving the cervix spread more rapidly than those of the body, and must always be operated on abdominally. Cancers in young persons are especially malignant, as are the very soft tumors. The only tumor of the portio that can safely be operated on from below is the hard, ulcerated, squamous epithelioma. Thus all cancers must be operated on from above except hard tumors of the body and portio.

CONDITIONS DETERMINING VARIATIONS IN ENERGY OF TUMOR GROWTH.

Loeb (Amer. Med.), finds that the rate of tumor growth is influenced not only by the species into which the tumor is transplanted, but also by variations which exist among individuals or families of the same species. Under certain conditions a state of active immunity can be experimentally produced—more easily with some tumors than with others. The energy of tumor growth can be increased through successive transplantations up to a certain maximum. An experimental decrease in the energy of tumor growth can also be caused. These variations are caused by a direct stimulating or depressing effect upon the tumor cells. Such growth is primarily due to an increased energy of growth of those cells from which the tumor takes its origin; it can not be due to a lowered resistance of the organism in which the cells carry on their apparently

unlimited growth. If a tumor can not be successfully inoculated into other animals, it is probably not due to the fact that other animals are more resistant toward the growth of inoculated tumor cells than the animal in which the tumor growth developed originally, but to other causes still unknown.

NEW QUESTIONS IN THE EPIDEMIOLOGY OF TYPHOID.

Kutscher (Berliner klinische Wochenschrift) in discussing the epidemiology of typhoid fever, says that the more careful supervision of water supplies has been followed by an already noticeable diminution in the number of typhoid epidemics. More and more prominence in the dissemination of infection is, however, being assumed by the so-called "bacilli carriers." These are individuals who, while apparently healthy, harbor in their bodies large numbers of typhoid bacilli which they continually spread by their excretions. According to Lentz about four per cent. of all the cases, bacteriologically studied, were to be regarded as chronic bacilli carriers, and in many of these it was not possible to determine whether or not they had formerly gone through with a manifest typhoid infection. It appears that women oftener serve as permanent hosts to the typhoid bacillus than men. No method has yet been discovered by means of which it is possible to free the bacilli carriers from organisms. Internal medication always has only a temporary effect showing that the bacilli must be concealed in some situation inaccessible to the drugs ordinarily given by mouth. Both experiments on animals and post-mortem examinations on typhoid cadavers indicate that the gall-bladder probably affords the lurking place for the typhoid bacilli. Another element in the spread of the disease to which greater importance is being attached now than formerly is the matter of contact infection. It has often been observed that in limited outbreaks of the disease those infected have been only persons who have come into more or less intimate contact with the first patient, whereas other inhabitants of the same village who have used the same water or milk supplies have remained free from the disease. It accordingly appears that greater attention than before must be paid to the isolation of patients, and the thorough disinfection of all linen, dishes, and other articles coming in contact with the patient, as well as the excretions. The attendants of the sick person must also exercise particular caution in disinfecting their hands. The bacilli carriers present a more difficult problem to deal with, but it is evident that strenuous efforts must be made to prevent infection of others in this way. They must

be enjoined to dispose of their urine and feces properly, and must also be debarred from occupations concerned in the production of food products and especially of milk.

THE GENESIS OF PULMONARY LESIONS IN THE TUBERCULOUS

Vallee (*Gazette des Hopitaux Civils et Militaires*) has recently made a most important communication concerning this subject. He declares that in an animal with discrete tuberculous lesions of the intestine or of the mesentery the predominance of pulmonary lesions does not authorize one to admit that the affection was not contracted through the digestive tract. This opinion which the author already held in 1903, he has confirmed to-day by new experiments on twenty tuberculous calves. Twelve of these animals were infected through the nasopharynx, two by intratracheal inoculation, and the others through the digestive tract or by direct inoculation of a mesenteric ganglion, or of a branch of the mesenteric vein. Of all of these modes of infection, that of the intestine was the one which resulted the most quickly and the most surely in the infection of the ganglia connected with the lungs. The penetration of the intestine by the tubercle bacillus may be effected without producing apparently appreciable lesions of the intestinal mucosa or of the mesenteric ganglia. It must be admitted then at least from the experimental point of view, that the ingestion of tuberculous material plays a most important role in the development of the disease; and that a tuberculous adenopathy may exist without the least lesion of the corresponding viscera. Tracheo-bronchial adenopathy in particular may be due to the direct invasion of the ganglia by the bacillus of Koch. It is not a necessary consequence, at least from the experimental point of view of pulmonary tuberculosis.

DRY IODINE CATGUT.

Herhold (*Deutsche medizinische Wochenschrift*) praises very highly the quality of catgut prepared according to the Claudius iodine method, but states that in common with other authors he has found that the material loses greatly in strength on prolonged sojourn in the iodine solution. He describes culture experiments with catgut dried after two weeks soaking in the iodine solution, and agrees with Moschewitz that the material is not only safe per se, but is also very difficult to infect. Bits of dry iodine catgut were dipped in pus and laid in agar Petrit dishes. Although some bacterial growth followed, a clear zone all around the catgut remained free from col-

onies. The author, therefore, considers that the material can safely be used in this form, and describes two types of container in which it may be securely and conveniently stored. Culture tests were also made on catgut that had been soaked in the iodine solution for only three days, and it was found that sterility was secured, so that the author states that in emergencies this length of time is sufficient to obtain safe suture material, though for routine use the ordinary method of preparation is preferable.

VENTRAL SUSPENSION.

S. Chandler enumerates the causes which lead to uterine displacement calling for suspension or fixation. The operator must be sure of his diagnosis and ready to perform any additional operation which may be called for at the time. Of the many operative procedures the author prefers that of suspending the uterus by suturing the fundus to the abdominal peritoneum, repairing injuries, and removing diseased parts when necessary. His objection to the Alexander operation is that it is correct only in theory and not always available as the ligaments may not be sufficiently strong to obtain a continued correction and he considers it open to the objection that it does not give the operator the chance to diagnose or correct the original cause, or the present cause, as the case may be. He further commends the practice (because of the freedom of action and the giving the uterus an anteverted state) of placing the sutures a little posterior of the central meridian line of the fundus uteri.

CHLOROFORM NARCOSIS IN CHILD HOOD.

D. E. Gorochoff (*Therapia*.) In a large surgical service of a prominent hospital in Moscow there were within five years 1,143 cases of children operated upon under chloroform anesthesia. The drug was administered on a mask, the total quantity varying from one dram to one ounce. While the well-known accidents and complications like vomiting, asphyxia, alarming pulse-weakness, etc., could not altogether be avoided, yet they occurred only in a small number of instances, and not a single case ended fatally. This certainly speaks well for the safety of chloroform in children, and the author is convinced that at present we have no other anesthetic capable of supplanting chloroform, which, therefore, deserves full confidence.

[In this country chloroform is considered by the best anesthetists to be dangerous to use with children.—Ed.]

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EDITORIAL.

TO WHAT MANNER OF PHYSICIAN SHOULD THE CONSUMPTIVE APPLY FOR TREATMENT.

Dr. C. Edson Covey, Professor of Stomach and Intestinal Diseases National Medical University, writing in the People's Health Journal, calls attention to the fact that of all diseases with which the civilized races of mankind are afflicted, that malady variously known as "consumption," "phthisis," "tuberculosis," "the great white plague," and "the wasting sickness," is the most prevalent and the most deadly, although it is surely one of the most preventable and, if timely and properly treated, curable of ailments.

This is an age of specialism in nearly every branch of human endeavor. As is the case with other callings, the practice of the healing art has been divided and fenced off into a number of recognized departments

that physicians may devote their study to and acquire special experience and skill in the recognition and treatment of certain classes or groups of disease that from their peculiar nature, structural connection, or physiological and pathological relationship, are more or less bound together and inter-dependent.

This division of labor is a great convenience to the physician; it contracts and circumscribes his work, and it also economizes his expenses for literature with which to keep informed regarding and apparatus with which to operate his specialty. Although specialty practice serves to simplify the physician's work, it undoubtedly tends to confuse the ailing man or woman and make it difficult for them to decide regarding where best to seek the relief they desire. It was much more simple and easy for them when every physician treated most ails and all a sick person needed to do was to look for a doctor's office.

One of the problems that now faces and confuses the sufferer from tuberculosis is: To what department of the healing art does the treatment of tuberculosis properly belong, and from what character of specialist should aid be sought? Shall we consult the catarrh specialist, who will use local treatment with washes, sprays, insufflations, ointments, vapors, etc., to disinfect the respiratory passages, kill germs and heal the lesions caused by them? Shall we go for advice to one who has made a study of climate conditions and their influence over disease? Shall we go to a specialist in diseases of the lungs? To whom and from whom shall we look for succor and safety from this danger which menaces us?

Now I have personally been considerably interested in this very problem, both from the standpoint of patient and physician. Thirty odd years ago, weighing less than a hundred and ten pounds, with cough, morning lassitude, afternoon hectic, night sweats, and other common symptoms of tubercular invasion, I was thought to be well along on the road to a consumptive's grave. From that state I built myself up to two hundred and seventy pounds, and have in all the years since maintained my weight at upwards of two hundred pounds.

I have traveled considerably, visited many climates sojourned for a time at many places resorted to by tuberculosis victims, studied "at first hand" climatic conditions and their effects, consulted much with physicians specially interested in the tuberculosis problem, and have either adopted or formulated ideas and therapeutic methods and measures that, both for myself and patients, have resulted advantageously and satisfactorily.

My own studies and experiences lead me

to believe that the physician best fitted to treat and most likely to cure tuberculosis, is the alimentary or nutritive specialist. The starting point that prepares for or paves the way to tubercular invasion lies in malnutrition, and that physician who can provide one with the best digestive system and the greatest capacity for bodily nutrition will the most surely prevent and readily cure tuberculosis.

I do not dispute the germ theory or question the ravages of the bacillus tuberculosis or micro-organism so constantly and perniciously present in tubercular infection, but I do firmly believe that these germs are incapable of harming well-fed or properly nourished tissues, and that there must be nutritional deficiency before the germs of tuberculosis become a factor in the resulting disease. We are all alike exposed to infection by the bacillus tuberculosis; we are constantly receiving the germs into our bodies through substances swallowed or air we inhale, yet only those of us having some degree of nutritional defect appear to suffer infection. Well-fed tissues seem to antagonize, resist or repel the germs which work such havoc where there exists nutritional defect. Increase the nutrition of the tissues and it strengthens the bodily defenses to such an extent as to guard against and repel germ invasion. Even where tubercular invasion has already taken place, super-nutrition will wall off and create a barrier to its further spread, and the tissue changes constantly taking place within the body will soon eliminate both germs and the disease wrought by them.

Dr. Chrismond, in the Medical and Surgical Monitor, declares: "Patients in the first and second stages of phthisis pulmonalis can be cured as completely and effectually as can persons affected with malaria if placed in invigorating environments and their nutrition attended to." A writer in the Medical Brief states: "Outdoor life, plenty of sunshine and wholesome food, and keeping the digestive organs in a vigorous condition, should be the alpha and omega of the treatment for tuberculosis." Dr. Wheaton, in the New York Medical Journal, writes: "We must not lose sight of the fact that in a given case of tuberculosis we are dealing with a human being whose physiological resistance to disease has been practically destroyed; the tubercle bacillus is a factor of secondary consideration. We have no medicinal agents that will destroy tubercle bacillus within the lungs, and can only hope to arrest the progress of the disease by so nourishing our patient as to increase his physiological resistance, to restore, as it were, his natural immunity to the disease."

This paper is no argument against the claims of those advocating the so-called

"open air treatment." Air is an element for nutrition and in its place, as necessary to the life and vitality of the tissues as any other form of food. By all means we should eat plenty of good air—breathe our fill of it, but air is insufficient to render tissues immune to germ invasion. Only a portion of ingestion of tissue sustenance is through the lungs, the main alimentary tract lies beyond the "swallow," and it is here in stomach and bowel that the principal battle against tuberculosis must be fought. The sound of words may mislead, it may not be accomplished on the principle of "like cures like," but consumption is most surely combated and cured by consuming food. Consuming food means vastly more than the mere swallowing of it. To be consumed, food must be digested, absorbed, appropriated by the tissues and utilized for feeding the fires of life.

Here is where the nutrition specialist is most successful in curing consumption. He gives the tuberculosis patient the best digestive capacity possible for him, and builds the bodily structures up until they become immune to the attacks of the germs that would otherwise ravage them.

The Eclectic Medical Journal recently said editorially: "Sustain the vital forces! This is the key to life and the secret of restoration of health—the primary principle in the successful treatment of disease. Talk about invasion of the human body by bacteria! Sustain the vital forces and you will render them powerless. So long as vital force is maintained germs are insignificant creatures. We render bacteria harmless when we maintain vital force. The whole medical world is coming to this tenet which forms the keystone in the structure of therapeutic success."

A committee appointed by the New York Post-Graduate Medical School to investigate tuberculosis, on June 30, 1905, reported: "Pulmonary tuberculosis is a disease of malnutrition. Improved nutrition and its maintenance is the fundamental principle in its treatment. It is a wasting disease and the most encouraging symptom of improvement is gain in weight."

Says the Therapeutic Gazette for February 15, 1905: "A healthy stomach is one of the best guarantees against consumption; it is also one of the chief aids in restoring diseased lungs."

The Annals of Hygiene declares: "In addition to the germ there must be suitable soil for its proliferation in the body. This individual predisposition or vulnerability which renders the tissues liable to be acted upon by the germs, results from faulty nutrition."

The Medical Idea avers: "Half the battle is in keeping up the patient's nutrition."

The Dietetic and Hygienic Gazette adds: "There is no known medicinal virtue for tuberculosis that inheres in any climate. Climates are chiefly valuable for the consumptive as they make it easy for him to be out of doors or to have free ventilation indoors. Some climates are more comfortable and enticing, but it is the management of the patient, vastly more than any climate, that tells for recovery from tuberculosis."

Dr. Campbell, in an address before the New York State Medical Association, said: "Assimilation is the cardinal point in the treatment of tuberculosis."

According to the Journal of the American Medical Association for October 15, 1900: "Treatment of the gastro-intestinal tract is the most legitimate form of phthisiotherapy."

This kind and character of evidence corroborative of my contention that it is to the nutrition specialist we must look for the best treatment of tubercular involvement, can be voluminously multiplied but enough is adduced herewith for present purposes.

Consumption is a perfectly preventable and curable disease. It is only to be feared when it is neglected. It is neglected whenever the bodily nutrition is permitted to deteriorate to an extent to render the tissues vulnerable to the assaults of the bacillus tuberculosis. It is the specialist in disorders of digestion and nutrition who can best correct the conditions that permit of tubercular invasion. The problem of how he is to do this is one that must be individually worked out, for the personal equation enters so largely into it. There are certain general rules to be followed, but varying means to meet special requirements of each individual case make specific directions difficult to formulate. The best way to become an accomplished phthisiotherapeutist is to carefully study all manner of digestive disturbances and nutritional disorders. When one is fully competent to recognize and correct these he will be capable of affording the best treatment for consumption.

Consumption is a wasting disease. Attend to the patient's nutrition. Build up his tissues. Make him fat and resistant to germ attack. If his tissues are well greased the germs of consumption will slip up if they undertake a diabolical dance of death therein. I believe it possible to regulate the amount of fat one should carry, and increase or reduce it at will. However, we need have no fear of making the consumptive over-fat as his natural tendency is in the other direction. It is better to be over-fat than too thin. Excess flesh is the consumptive's best protection. Better a double chin than a "hatchet face." Portliness even to pursiness is preferable to being wasted and wan. Roomy paunches are more desirable than flat chests. Pudgy and jovial jowls are more

attractive than hollow cheeks wherein the hectic spots burn redly like signal lamps of death.

Food, good in quality and generous in quantity, a vigorous digestion and adequate nutrition, will solve the tuberculosis problem. Rest, sunshine, fresh air, are all good and helpful in their way, but, after all, one must eat his way out of tubercular involvement. The medicines most promotive of recovery from consumption are not cough mixtures, respiratory antiseptics, etc., but those which most promote appetite, vigorous digestion and adequate assimilation.

Push nutrition to a point where the fires of life can not consume all the fuel in the system, if you get obesity and lithemia it is favorable; uric-acidemia is opposed to tubercular invasion. Not only give plenty of the fats, but push the ingestion, digestion and absorption of the albuminoids. Animals living largely on a meat diet seldom contract tuberculosis; the old house-dog may get rheumatic and stiffened up but does not have consumption; the Indians subsisting largely on game and living in teepees did not have consumption, but since being housed and adopting a diet largely of vegetable nature they are developing phthisis to an alarming extent. Butchers who continually "piece" on "red meat" get rheumatism but seldom consumption. I can not recall a case where a person subject to chronic rheumatism contracted consumption. A diet favorable to uricacidemia is likely to prove serviceable in combating tuberculosis—only swallowing is not wholly sufficient, it must be digested and assimilated, and, to restate my contention, the nutrition specialist is best fitted to attend to the details of alimentation.

LEAD POISONING.

This subject naturally divides itself into the consideration of the acute and chronic forms, but there is also a group of symptoms which is described as the subacute variety.

Acute lead poisoning is generally produced by the ingestion of some soluble salt of the metal, notably the acetate, as it is the one in commonest use. There are very few cases on record in which this substance has been taken with suicidal intent, but it and some other salts have been given for the purpose of homicide. The great majority of cases are accidental.

The subacute and chronic cases occur among those who habitually handle lead and its compounds, such as painters, glaziers and manufacturers of white lead. As some soluble salts have been used extensively in the preparation of certain cosmetics and hair dyes, their use has not infrequently been followed by toxic symptoms.

In regions where the water holds lime in solution the lead pipes used to convey the water acquire a coating which protects them from solution; but where lime is absent, and especially where the water contains nitrates, there may be enough lead dissolved from the pipes to produce poisoning.

When a solution of a soluble lead salt is swallowed in toxic quantity, there is experienced first a disagreeable, sweetish taste in the mouth. This is soon followed by vomiting, with or without nausea; the vomited matter being usually white from the effects of the chloride of lead. After a short time, there comes a burning pain in the abdomen with intense thirst. Usually there is obstinate constipation, but in some instances there is diarrhoea, the matters being black with lead sulphuret.

Sometimes the patient goes rapidly into a state of collapse, with all the usual symptoms, such as a slow pulse, loss of voice, subnormal temperature, etc. In other instances, there are severe cramps in the calves of the legs, neuralgic pains in the extremities, paralysis, vertigo and stupor; the latter may deepen into coma and be followed by death.

The treatment of this condition is the exhibition of large doses of the sulphate of magnesium or sodium; these form the insoluble sulphate of lead, and the excess of the drug acts as a purgative. When the pain is severe, it must be met by morphine. Albuminous and mucilaginous drinks should be given as in other cases of poisoning by irritant substances.

The symptoms of subacute poisoning frequently come on very suddenly and without warning, although usually they are preceded by several days of malaise and loss of appetite. The principal symptom is abdominal pain, which is remittant in character, usually centered about the umbilicus, and is described as twisting and boring. As in other conditions of cramp, the walls of the abdomen are contracted and rigid.

The tongue is of a whitish color and is often smaller than normal. The thirst is often great; there may be neuralgic pains in various parts of the body. This condition may pass away and the convalescence be fairly rapid, but in the majority of cases one attack is followed by others, though usually of a milder type. This condition often runs into the chronic form of the malady.

The symptoms of chronic poisoning are extremely varied. One of the most constant is the double wrist-drop, a paralysis of the extensor muscles of the hand. Very rarely this symptom is unilateral. Accompanying this there is usually a failure of the general health. Anaesthesia of the forearm and hand is not uncommon, and sometimes it is observed in other parts of the body.

In one group of cases cerebral symptoms are predominant; there is sometimes an inflammation of the brain substance or of the meninges. This gives rise to various symptoms according to what area is affected. There may be violent mania, headache, giddiness, sleeplessness or a low, muttering delirium. Severe convulsions like those of epilepsy are occasionally observed.

The kidneys are frequently affected, usually in the way of a chronic interstitial nephritis, and uremia may supervene.

Another symptom which is of frequent occurrence is a disturbance of vision; this generally takes the form of ambliopia due to an optic neuritis; some visual symptoms are caused by lesions of the sight center in the brain.

A variety of locomotor ataxia is often the result of chronic lead poisoning. This can be distinguished from the true form of the disease by the presence of tenderness over the nerve trunks and by the retention of the tendon reflexes. In some cases there is an ascending paralysis, apparently caused by progressive destruction of the anterior horns of the spinal cord, but most of the nerve symptoms arise from lesions of the trunks of the nerves.

As in many other systemic diseases, the brunt of the attack seems to be directed to the patient's point of least resistance, and any organ of the body may be involved. Cirrhosis of the liver has been described and degeneration of the mucous lining of the intestinal tract.

As may be seen, the diagnosis is often difficult, but when cases are studied with great care there will generally be found some typical feature which gives the physician a hint that it is not the malady which it appears to be on first sight. When a doubt is raised in his mind, he will be put upon his guard and a careful chemical examination of the urine will reveal the presence of the metal.

The treatment of the acute form of poisoning has already been alluded to. In the subacute form the sulphates should be exhibited freely, and, if these do not move the bowels, castor oil or even croton oil must be used. To aid in the elimination through the skin baths of potassium sulphuret are useful, as is also pilocarpine given hypodermically.

To eliminate the metal which has been absorbed and stored in the tissues, there is nothing so good as the iodide of potassium. This should be exhibited in moderate doses extended over a long period of time. The most convenient form in which to give it is the mixture known as Iodia, in which the taste of the drug is thoroughly disguised; the other ingredients are also useful in maintaining the general nutrition.

Some cases have been treated with gal-

vanic baths, the patient being placed in a tub and the positive pole applied to the nape of the neck while the negative is applied to the feet. A method that has also been suggested is to use a sheet of metal as a negative pole and to merely hang this in the water of the bath, while the positive pole is moved from place to place over the body. In lead poisoning we have seen success with iodine where all other methods have failed.

IMPORTANCE OF EARLY TEACHING.

Education must begin with the young. Simultaneously with this education, or when it is under way, the education of parents and teachers must be undertaken. The importance of the matter precludes the possibility of depending upon the education of parents first, for not only is it a matter of their education, but of combating their prejudices and perverted ideas. "Where shall this education be given and by whom?" asks Dr. L. Duncan Bulkley. Fundamentally every influence should be brought to bear to secure needful instruction from parents. In addition to the teaching of physiology in the public schools, which is largely perfunctory and without that broad knowledge which tends to make simple and luminous bare physiological facts, and which stops, so far as girls are concerned, with a bare mention of the pelvic organs and the fact of menstruation, but not of their relation to the phenomena of reproduction, there should be added a talk on sexual physiology from an authoritative source. Instruction in physiology is given in the fourth grammar grade and to girls from thirteen to sixteen, just when physiologically the necessity arises for the possession of this knowledge to the end of safeguarding their health and preserving their purity. But the simplest physiological facts are imparted in such a manner that the child is left to puzzle over the meaning of words and to associate a term with the thought that it is something which they are not intended to understand. Duodenum, for example, was used by a teacher in such a way that the term was kept in the mind of a young working girl from her grammar school days to the age of twenty, when, believing it bore some suggestive significance, she asked me what it meant. Likewise instruction as to the anatomy and physiology of the reproductive organs is given in a manner, if given at all, that has no bearing upon the phenomena of life, and either is without significance or suggestive of a wrong and hidden meaning.

This is all unnecessary. Much more fortunate was a patient of mine who, from their infancy and childhood had entire charge of three orphan daughters of her sister. In

describing the shape, size, position and supports of the reproductive organs, their physiological function and relation to reproduction, it was done in so dainty a manner and with such graceful imagery that one of them exclaimed: "Oh, I know, auntie, just like an oriole's nest." There could be no prettier conception, but it could only be made to appeal to the child more or less familiar with natural history, a study of which would lead without a false step to the important biologic phenomena of reproduction.

Mothers and teachers who know that young girls under their care are not in ignorance of sexual matters steadfastly close their eyes to the fact and believe that in ignoring them all dangers will be averted. As attendance at school is required to the age of fourteen there should then be no trouble in imparting this necessary instruction or preliminary physiological education in the public schools. But there are many avenues through which young women of the working class can be reached for more advanced instruction if the age limit required for attendance upon public schools finds them too young. There are many working girls' clubs. For example in New York City the New York Association of Working Girls' Societies has thirty-two distinct branches. The Association of Neighborhood Workers represents fifty settlements that also have such clubs. This makes eighty-two centers; then there are the Girls' Friendly, Manhattan Working Girls' Clubs, and others. Without making an exact statistical estimate, it is safe to say there are at least two hundred or more such organizations. Churches also have their friendly societies and leagues, where it should be possible to get into touch with the young women of the working classes. The Young Women's Christian Association opens up still other opportunities. Other avenues which suggest themselves to my mind are the large department stores and manufactories, where vast numbers of young women are employed who are especially exposed to untoward influences. Some of the department stores have already adopted measures, which, if followed up, should readily lead to opening the way for the work.

Siegel & Cooper employ a male physician who is on duty from nine to five, and is paid by the firm, and they also employ an untrained nurse; Wanamaker has a private physician on call and employs a trained nurse—both places have a mutual benefit association for employees; Altman has a private male physician on call; Simpson & Crawford call one when needed; Macy's is the only firm, to my knowledge, which employs a woman physician.

Women's clubs could do no nobler work

than to secure needed teaching for themselves, and in turn assist in the education of those less fortunately placed. In the centers where working women congregate a woman physician should either be employed or be on call, in addition to the male physician, and through her relation to her employers and their employees there should be no difficulty in securing opportunities for necessary instruction. A part of her duty should be to supplement the meagre school education in physiology and add to it necessary instruction in sexual physiology.

This special instruction, so far as it concerns girls and women, by reason of its very nature should devolve upon women physicians. But when men, after long years of all the privileges of the medical profession, are only just waking up to the need of concerted action in these matters, it is not strange that medical women, whose professional privileges and opportunities are not only of shorter standing, but of much less scope, are not yet fully awake to the needs of their sex and their duty in relation thereto.

In so far as young women of the working classes are to be reached, outside of their mothers' teaching, instruction can only come from competent medical women, or, when by nature and education especially qualified, the trained nurses employed by corporations like those mentioned.

That this may be effectively done requires a perfect and complete organization of women of the profession, who must be animated by a unity of purpose and action. To insure the success of such a body not only the moral support, but the authoritative backing of this parent organization will be required. The way will not be easy, and infinite tact, great patience, persistence, wide learning and broad humanity must be brought to the work. It will require all these as embodied in the representative intelligence of this society to overcome the prejudices of those who stand between it and all the organized centers of working women.

Although animated by the noblest motives, the professional philanthropists are apt to approach the subject with a certain mawkish sentimentalism. They say it is a very delicate subject, and by its discussion more harm than good is done. "Not until the ideal woman physician arrives can it be done, and how we shall welcome her! But she will have to be ideal," is the sentiment of others.

Even the settlement workers, in so far as I have spoken with them, feel it a very difficult situation, and are disposed to cry: "Hands off!" They regard the safeguarding of those of very tender years as of very great importance (those who are presumably

too young to be instructed), but, in their opinion of these workers, nothing can be done, save by warning girls in general terms. They are unable to convince themselves that much more than this can be accomplished with audiences or with small groups of girls.

It is believed that the mothers of the East Side, for example, are less apt to be negligent in the matter of necessary instruction to their daughters in connection with their sexual physiology, than mothers of better circumstances, if I may so distinguish. They are forced to this by reason of their crowded rooms and promiscuous living. Unquestionably the evils arising from a lack of education would be lessened by model tenement houses with facilities for necessary personal privacy.

The whole attitude of those standing in the position of guardians, whether natural or self-imposed, toward instruction in these matters is wrong. As this teaching is not, can not, or will not be given by parents, philanthropists and others who have the opportunity, sexual physiology should in a perfectly natural, commonplace manner, form a part of the curriculum of school education or of the lectures furnished by the management of working girls' clubs, or given by the employers of large numbers of young women. This instruction should preferably be by word of mouth, for it is by the silent perusal, even of the most carefully worded leaflet or book; that the undisciplined mind is apt to be led astray. The printed word is often read at first, not always with a knowledge that it is so read, for sensual gratification. Teachers are ignorant of what they teach when it comes to physiology. If they are to take part in giving instruction they should be specially qualified. The tendency of the day toward greater attention in the public schools to the study of natural history, physics and biology will aid in the development of a higher intelligence and conception of life in all its aspects on the part of the teachers, the benefits from which must be reached by the young under their care.

A considerable experience in my early professional life with penal, reformatory and eleemosynary institutions showed me that reformatory measures were of little avail. When health is broken an effort to reform is made, but with its return a life of immorality is renewed. Therefore the greater need for education and prevention.

The lack of education in these matters leads not alone to immoral practices, but is prejudicial, as well, to that perfect health which should be the God-given right of every human being. Because of a lack of knowledge, menstruating girls lay the seeds for lives of wretched invalidism. The ignor-

ant, but pure, young woman marries without knowledge of the dangers which await her, for unfortunately the code of honor makes right for man that which women dare not do under ban of social ostracism. The result is disastrous in the extreme—a ruined life of wretched invalidism. This may happen whatever the social position. With a practice which has in no sense a venereal aspect, fully one-half of my gynecological classes are of gonorrheal origin, and they are the saddest cases with which I meet.

But while realizing the great necessity of education in sexual physiology for all women, it should embrace none of the prurient nor flippant information already too common among all classes, but should be so natural, simple and dignified as to arouse no thought of evil, but to serve as an armor against it.

TREATMENT OF MALARIAL FEVER.

In the Southern States and throughout the great Mississippi Valley malaria is such a common disease that most people think that they know about all there is to be known concerning its treatment, and each one has his favorite remedies and methods. Notwithstanding this, the disease does not seem to be on the decline, and we unfortunately see many cases that have resisted treatment for years.

Of course, quinine is the greatest standard remedy, but there are many cases which it has failed to cure, and there are a multitude of substitutes on the market. The effects of quinine are very unpleasant to many people, and in the large doses in which it is frequently given, some patients would rather have the malaria.

Now, in our opinion, the fault is not wholly with the drug, but in the method of administration. Quinine is a poison, and its indiscriminate use is to be severely condemned. It should be given only in those cases in which it is really indicated, and in as small doses as will produce the result.

A knowledge of the life history of the malarial parasite is necessary to one who expects to treat the disease intelligently. We have not space for even a resume of this subject, but will merely say that in the ordinary forms of the disease the great majority of the parasites mature at about the same time of day and break up into a number of small ones. The latter float free in the blood for a variable space of time until they enter the red corpuscles. This is the time when they are unprotected—that they can be destroyed; when they are within the corpuscles they are safe from attack.

In the pernicious malarias, on the other hand, there is little tendency toward thus maturing all together; some organisms are breaking up at all hours.

When the parasite breaks up and escapes from the red cell which has held it there is set free in the blood a quantity of the peculiar toxine elaborated by its life processes. This is what produces the chill, fever and sweating. This also accounts for the fact that in the pernicious form there is rarely a regular and pronounced paroxysm as is seen in the common varieties.

The evil effects of malaria are thus seen to be along two lines; the general intoxication of the system by the poisons set free when the parasite breaks up and the destruction of the red blood corpuscles, one of which is consumed by each parasite that matures.

This loss of the red cells is probably the more serious effect of the two, for in even a mild and short attack they are destroyed by the millions.

The diagnosis of malaria is not always easy. Writers say that all that is necessary is to find the organism in the blood. This is all very well when the parasite can be found, but the majority of patients will dose themselves for a day or two before sending for a physician. But as soon as quinine in any quantity has entered the blood the malarial parasite leaves the surface blood and hides in the deeper organs, especially the spleen, and a microscopic examination is useless. Besides, there are comparatively few physicians who have a microscope of sufficient power to show the organism, and fewer still who can distinguish it when they see it.

To prepare a good specimen of fresh blood the slide and cover glass must be absolutely free from any trace of grease in order that the blood may spread evenly. The specimen is taken either from a finger or from the lobe of the ear. The part must be clean; if the finger is chosen it is well to tie a bandage about the upper part of it so that it will become engorged with blood. Then it is pricked with a sterile needle, and the first two or three drops wiped off. Then another drop is squeezed out and the cover glass is lowered upon it so that the drop just touches the center of the glass. The cover is then placed on the slide, and if they are both clean the blood will spread in an even film between the two. Any pressure upon the cover is to be avoided as it distorts the corpuscles, and lateral motion is almost as bad. If it is not convenient to study the slide for a little while, as when the blood is taken at the bed-side, put a little vaseline about the edges to prevent evaporation. If now the temperature of the preparation is maintained at about blood-heat the parasites will live for some time and may be observed to move.

The best time to take the specimen is just before the chill; they are then fully grown, often pigmented and plainly to be seen.

During the early part of the paroxysm some parasites may frequently be found which have not yet escaped from the corpuscles.

Without special training and a very fine instrument it is almost useless to hunt for the young organisms after they escape, although sometimes they may accidentally be seen.

When the organisms are a little older and, before they acquire pigment they are very difficult to distinguish from the vacuoles which are often observed in red corpuscles during many diseased states. There is a difference in refraction between the two which may sometimes be made out by carefully focusing up and down. If the object shows decided movement the identification is without question, but in cases of doubt it is necessary to prepare stained specimens. These are difficult to prepare, but the results are very beautiful, and the appearance of the parasite is so characteristic that a mistake is almost impossible.

It will thus be readily seen that the best time for giving the quinine is just before the chill. It will not prevent the paroxysm but it will generally prevent the following one. After the chill is ended it is useless to give quinine in the form of pills, capsules or tablets; the absorption is too slow. If the patient will stand it, a solution of the drug is very efficient, and is still of use up to the time of the sweat. Lemon juice will remove the taste from the mouth very quickly. If there is much nausea give a few drops of laudanum about fifteen minutes before the quinine. Only in the most urgent cases is the hypodermic use of the drug justifiable, for it is extremely painful.

A tonic for the blood should be given from the beginning of the case, one containing iron and manganese is indicated; this is to help in the renewal of the many red corpuscles which have been destroyed. Gude's Pepto-Mangan is an ideal one for this purpose.

In chronic cases Warburg's Tincture and arsenic often succeed where quinine fails, and the blood tonic is especially necessary.

Abstracts and Selections—Continued.

BUTTERMILK FEEDING.

Buttermilk has been used for infant feeding in Holland from time immemorial, and its use has been greatly extended since Teixeira's researches reported in 1902. Massanek (*Jahrbuch für Kinderheilkunde*) studied this food during ten months on seventy-nine babies. The casein in buttermilk is suspended in a very fine state of coagulation. The amount of fat varies from one-fifth to one per cent. This buttermilk was

obtained four hours after churning, and to each liter fifteen grains of rice flour and 60 to 90 grains of ordinary beet sugar were added. This is brought to a boil four times and then sterilized in a Soxhlet apparatus for ten minutes. The preparation was taken eagerly by all the infants. Fewer cases of diarrhoea occurred than before this diet, nor were any bad effects attributable to it observed. In the maternity hospital cases it was given alternately with the breast and was well borne. No cases of sickness occurred among these buttermilk-fed infants. In this sterilized buttermilk the lactic acid bacteria are destroyed, but their product, lactic acid, remains. This acid has a disinfectant action and aids peptonization. While the reaction of the milk is strongly acid, the stools are always strong alkaline. Massanek concludes also that buttermilk can be fed to sick infants for long periods. It has the advantage of great cheapness.

A STUDY OF THE LARYNX IN TABES.

Greene (Boston Medical and Surgical Journal): On account of the results of examination of the larynx of sixty cases of tabes with the view of obtaining data on the proportion affected, the nature of the disturbance and the period of occurrence in the course of the disease. Fifteen per cent. showed pharyngeal complications. The only form of paralysis observed was abductor paralysis. Six cases were found, five were unilateral and one bilateral. The laryngeal symptoms are among the early symptoms of tabes.

THE VALUE OF CRYOSCOPY IN THE ANALYSIS OF MILK.

G. Finizio (*Rivista di Clin. Pediatr.*): The freezing point of milk has no relation to the specific gravity of that fluid. The freezing point becomes lower the greater the amount of dry residue; it becomes higher the greater the amount of water in the milk. The amount of fat has no influence upon the variations of the freezing point, because the fat in milk is in a state of emulsion. This explains why the freezing point does not correspond to the specific gravity. Both the amount of casein and of mineral salts influence the variation in the freezing point, but it is impossible from the variations in the freezing point to determine the amount of proteids or of mineral salts contained in milk. The substance which has the greatest influence upon the freezing point of milk is lactose. The freezing test does not always reveal slight additions of water, and it does not always show greater dilution, because

with the water are added substances which lower the freezing point. The author's conclusion is that the freezing point is not of great value in detecting either quantitative or qualitative adulterations of milk.

IMMUNITY THROUGH MOTHER'S MILK.

B. Salge (Berliner klin. Wochenschrift) urges that in cases of the mother contracting contagious disease the child be left at the breast. He states that infants under six months of age are practically immune to scarlet fever, and that an immunizing injection of antitoxin protects them against diphtheria. Tuberculosis, he says, is the only disease in which nursing is contraindicated. The author advises against wiping out the infant's mouth, as it produces abrasions which favor infection.

A NEW PROCEDURE IN INTESTINAL ANASTOMOSIS.

The plan advised by B. L. Wright (Medical News) is as follows: The first step is to introduce three temporary or stay sutures, dividing the circumference of the bowel into three parts. The first suture is introduced at the mesenteric attachment, the other two at equidistant points from the first. They should be left long and their free ends secured. The second step is begun by the assistants now taking the first suture in one hand and the second in the other. By firmly drawing these in opposite directions, it will be found that the free edges of the gut naturally invert themselves and come into close approximation, forming a ridge, raised above the general surface of the bowel, through which the permanent suture can readily be passed. The third step is the passage of the needle bearing the suture through the ridge. Each third of the ridge-like elevation is sutured separately, so that when the operation is complete the entire circumference of the bowel has been sutured. The temporary or stay sutures can now be removed or can be tied and cut to give additional security.

SPINAL ANALGESIA IN THE DIAGNOSIS AND TREATMENT OF RECTAL DISEASES.

Neugebauer (Centralblatt für Chirurgie) has found that a greater degree of relaxation of the anal sphincters takes place under spinal anesthesia than when any other mode of narcosis is employed. This fact can very advantageously be utilized if rectal disorders are to be diagnosed or treated, for the paralysis of the muscular tissues greatly facilitates inspection and operation in the district adjoining the sphincters.

IS MENSTRUATION PHYSIOLOGICAL OR PATHOLOGICAL?

M. Tobler (British Medical Journal) has, during the past two years, examined women, with a view to ascertaining as precisely as possible the influence of the catamenia on the female economy. As is the case with most previous observers, Tobler finds that in the great majority of women at the present day menstruation is associated with distinct deterioration of the general health and diminution of functional energy. In 26 per cent. local pain, general malaise, and psychoses coexist; in large proportions come those in whom general weak health, or else some psychosis or local pain, is alone experienced at the period. In 16 per cent. none of these symptoms are present, and Tobler makes a separate group of 3.3 per cent. in whom the mind and functions are stronger during the period. In about 3.6 per cent., constituting yet another class, this increase of strength during the presence of the catamenia is associated with distinct disturbances in the intervals. Tobler considers that the familiar disturbances during menstruation are pathological, but that the process itself is physiological. Deterioration of constitution and unhealthy habits and surroundings cause the increase of tissue change, which is part of the process, to result in toxic products prejudicial to the system, whilst normally products favorable to the economy should be evolved.

BOOK REVIEWS.

The new edition of Landis' Compend of Obstetrics will be most gratefully received by the profession. This work has been thoroughly revised, and has been brought thoroughly up to date. Considerable new matter has been added, including an appendix containing tables of certain obstetric constants which should be useful to students in condensing their lectures and demonstrations.

This new edition of Wood's Therapeutics will be most gratefully received by the profession. This work has been thoroughly revised and the revision based upon and conforming to the new Pharmacopoeia which became official September 1st, and owing to the changes in drug strength and the number of new ones now official, this prompt appearance should make Wood doubly appreciated at this time.

A Compend of Obstetrics, Especially Adapted to the Use of Medical Students and Physicians, by Henry G. Landis, A. M., M.

D., late Professor of Obstetrics and Diseases of Women in Starling Medical College. Revised and edited by William H. Wells, M. D., Demonstrator of Clinical Obstetrics in the Jefferson Medical College. Eighth edition; illustrated. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa. Price, \$1.00.

Therapeutics—Its Principles and Practice, by Horation C. Wood, M. D., LL. D., Professor of Materia Medica and Therapeutics in the University of Pennsylvania; member of the National Academy of Science. Twelfth edition. Thoroughly revised and adapted to the eighth (1905) edition of the United States Pharmacopoeia by Horatio C. Wood, M. D., and Horatio C. Wood, Jr., M. D., Demonstrator of Pharmacodynamics in the University of Pennsylvania. Published by J. B. Lippincott Co., Philadelphia, Pa. Price, \$5.00.

MEDICAL GLEANINGS.

Appendectomy in all cases of recurrent appendicitis.

Dr. Schwabach reports two cases of deafness with tinnitus and vertigo relieved by the administration of fluid extract of ergot.

Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider.

When operating for empyema thoracis it is a good rule to aspirate again when the pleura is exposed and before it is incised. This may save some embarrassment.

Hyoscyamus in small doses is said to be a good remedy in senile tremblings, dizziness, vertigo and loss of memory. It is the homeopathic remedy for violent and noisy delirium.

Frank M. Johnson has found burnt magnesia, one-half to one teaspoonful three times a day in water, more effective than dilute nitromuriatic acid in the treatment of lithemia.

In constipation and nervous affections *Casara-Glycero-Phosphate* has been used with much success. The Oregon Pharmaceutical Co., of Indianapolis, Ind., will be pleased to send sample on request.

Dr. Stumpf, of Wurzburg, announces a new cure for cholera. It consists in feeding the patient with triturated clay. The doctor states that all vomiting stops immediately and the fever subsides in a half an hour.

Celery-Vesce is highly recommended in the treatment of headache, neuralgia, sleeplessness, etc. *Celery-Vesce* is a most palatable remedy, resembling cream soda. Samples can be had on request to the Century Chemical Co., Indianapolis, Ind.

The temptation should not be yielded to to incise a psoas, hip or other "cold" abscess, except in isolated instances and then only under the most rigid asepsis. The production of a mixed infection means chronic sinus, chronic invalidism and, often, amyloid disease.

The Postoffice Department has issued a sweeping order debarring from the mails a number of Philadelphia individuals and "companies" who pretend to be legitimate medical practitioners and institutions, but investigation of whose business has revealed their fictitious character.

In nervous gastralgia the dilute hydrocyanic acid will give prompt relief. Nervous and irritative dyspepsia and enteralgia are quickly cured by this agent. In chloroform poisoning also, dilute hydrocyanic acid is the best antidote given from a drop tube on the back of the tongue. The dose is one minim for about every ten pounds of body weight.

A Nothnagel scholarship of \$5,000 is announced to be established in memory of the late professor. The yearly income will be awarded as a prize for the best medical essay on such medical problems as may be proposed by the senate of the University of Vienna. Should no essay be satisfactory, the money is to be expended to encourage research on diseases of the intestines.

Prolapse of the rectum in children usually yields to treatment by strapping the nates together with adhesive plaster, if carried out intelligently and persistently, for several weeks or months. The child should be obliged to defecate in the recumbent posture and while the strap is on. After defecation the strap is removed, the parts cleansed and a fresh strap applied, all while the child is recumbent.

In neurasthenia, rest, regulated diet and exercise are indicated; bathing is of great value, as increasing elimination and for its tonic effect upon the nervous system. The salts of lithia are of service; vichy may be used in some instances. Of tonics, the phosphorus-containing compounds are our mainstays. Strychnine is of value, but must be used with care. Suggestion and psychotherapy often accomplish a great deal. Morphine should not be used.

The enterprise and courage of the members of the San Francisco drug trade were clearly exemplified during the recent disaster. Before the fire was extinguished they placed large orders with the manufacturing chemists. One house ordered 30,000 pounds of Antiphlogistine, and altogether over 100,000 pounds were shipped to the coast upon order within a week. On a steamer from New York, running up the California coast at the time of the earthquake, were 35,000

pounds of Antiphlogistine, and upon orders from the home office the emergency hospitals were liberally supplied free of charge.

The large number of cases of pneumonia, bronchitis and other acute diseases of the air passages prevalent during the winter and early spring that will confront physicians, put them on the qui vive for agents of a remedial nature that will assist them in their winter's work. Opinion as to the proper management of a pneumonia differs widely, one man adhering to a certain mode of procedure and another employing another method of treatment. Owing to the very nature of the disease, there could scarcely be any uniformity of treatment. The point at issue is to keep the inflammation under subjection as well as possible, guiding the patient with the same cool and steady hand a mariner uses in steering his craft through a treacherous channel. But even with deference of the disease established, the trouble is not yet over; there are still some rocks and shoals, and possibly, not charted. It is at this time when the need for a tonic constructive is clearly shown. The patient should now be put upon Hagee's cordial of cod liver oil. This is one of the best known of the cod liver oil preparations, and its palatability adds very much to its efficacy as a remedy. Hagee's cordial will prove acceptable to stomachs that are intolerant of ordinary cod liver oil. Its therapeutic value is much enhanced by the addition of the hypophosphites of calcium and sodium.

During the past two months we have met with more la grippe than anything else, and the number of cases in which the pulmonary and bronchial organs have been very slightly or not at all involved, has been greater than we have noted in former invasions. On the contrary, grippal neuralgia, rheumatism and

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hepatitis have been of far greater frequency, while the nervous system has also been most seriously depressed. With each succeeding visitation of this trouble we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nerve sedatives, anodynes and tonics rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encouraging skin and kidney action, with possibly minute doses of blue pill or calomel. We have found much benefit from the use of antikamnia and salol tablets—two every three hours in the stage of pyrexia and muscular painfulness, and later on, when there was fever and bronchial cough and expectoration, from an antikamnia and codeine tablet every three hours. Throughout the attack and after its intensity is over, the patient will require nerve and vascular tonics and reconstructives for some time. In addition to these therapeutic agents, the mental condition plays an important part, and the practitioner must not lose sight of its value. Cheerful company, change of scene and pleasant occupation are all not only helpful, but actually necessary in curing the patient.

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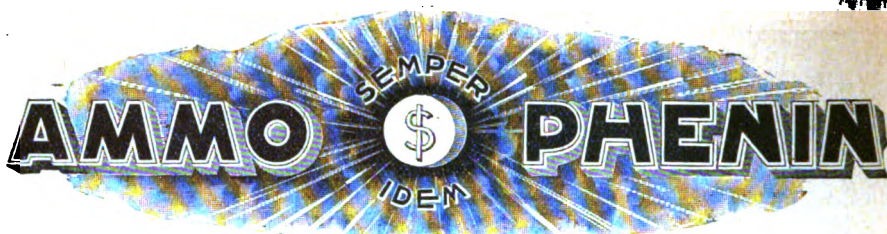
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ORIGINAL.

HOW SHOULD WE HANDLE OUR OBSTETRICAL CASES.

By H. M. Barnes, M. D., Blue Mount, Kas.

This is beyond doubt one of the greatest subjects now before the medical profession. It is one that affects the rich and the poor alike. The different environments of the woman calls for more thorough knowledge of the subject and more skill on the part of the obstetrician. There would be, I am sure, in a great many instances, accidents averted, if when the woman has reason to believe that she is pregnant, she go to her family physician and ascertain her true condition. It then becomes the duty of the physician to thoroughly examine his patient. If he is certain as to her condition, tell her, and give her explicit instructions how to proceed to produce the best possible results. If he is not sure as to whether she is pregnant have her call again. Keep a careful record of the first examination, and if there is occasion for a re-examination, carefully note the changed condition. This is much better than telling your patient, after a short conversation and feeling the abdomen, that she is either pregnant, has an ovarian tumor, a uterine fibroid or some other variety of which you can not call the name. There is a disposition on the part of the laity to pay too little attention to this important occasion, especially in rural districts. The physician in a great many instances is called in without any previous information of the condition of the patient. And in not a few instances finds a distended bladder, a large fecal mass in the rectum, or possibly finds the patient in convulsions. It is very essential that the physician should be able to differentiate between eclampsia, epilepsy, hysteria, apoplexy, and meningitis. If he be careless and should think this unimportant he is sooner or later to come to grief and it will be impossible to dispel that mental picture of the "handwriting on the wall." There has been and perhaps will be for some time to come considerable discussion as to the best way to educate a community

in regard to placing these cases in the hands of the physician.

There are very few cases in the rural districts that we do not have three or four neighbor women "come over to help dress the baby," and I believe by impressing upon these few the importance of seeing the physician during the first months of pregnancy that allowing some latitude for the dexterous use of their tongues it would be but a short time until the whole community would have the information. The physician should, if it is the first time, he is called to see the case, note the various diameters of the pelvis. Stevenson says: "That the prolonged first stages of labor is more frequently due to unfavorable mechanism than to rigidity of the os. The size of the os is not the sole criterion of progress in the first stage. Along with the inner ring must be taken an outer ring; the vaginal attachment; the relative condition as to dilatation of both must be noted. The dilatation of the outer ring is by peripheral and that of the inner ring by the wedge force of the fetus. The various presentations and the amount of amniotic fluid has a great deal of influence over the first stage. The rupture of the sac should not be made until there is complete dilatation."

The patient should be allowed to walk about the room, but should receive careful attention on account of the danger of prolapsus of the cord. The second stage requires considerable attention on the part of the physician. The different positions of the patient all have their good points, and it is useless to try to convince one that there is more advantage in one than in the other, but there is no doubt in my mind that different conditions demand different positions. The left lateral position in the second stage is preferable on account of it being easier for the obstetrician to support the perineum. The laceration of the perineum can oftentimes be avoided by the application of hot moist towels and digital dilatation of the vulva. Delivery of the head between uterine contractions has a distinct advantage in that we have a relaxed instead of rigidly contracted pelvic floor to deal with. This stage should not be allowed to exceed two and one-half hours on account of the danger of asphyxiation of the child

grow best at about the temperature of the human body, and that their growth is more or less affected as the temperature rises or falls. The streptococcus of erysipelas, for example, does not develop at a temperature of 103 degrees F., and is even killed at 105 degrees. The gonococcus is killed when heated for a few days at a temperature of even 102 degrees. The chicken's temperature, which is somewhat higher than that of man, has to be lowered before it can be given tuberculosis. The rabbit, when injected with pneumococcus which have been heated at a temperature of 104 degrees for a few days, does not develop pneumonia, but on the other hand, is rendered immune, and can not be given the disease. We notice, also, that the temperature rises with the amount of infection—the greater the dose, the greater the temperature, until the body is overwhelmed and the resisting powers overcome, when the temperature drops, even below normal, as in cases of cholera, where the temperature is sometimes as low as 80 degrees, or as in case of pneumonia in old persons, where the resistive forces are weak, and we have no rise of temperature, the patient's power of resistance being overcome.

In nearly all the infectious processes, where the invasion is abrupt, the first thing that happens is a more or less pronounced chill. This is nature's quickest way of raising the temperature, and, as stated above, this temperature rises with the amount of infection.

I believe that fever is the result of a battle between the resistive forces of the body on the one hand, trying to keep the temperature of the body at an elevation sufficient to overcome the infection, and the micro-organisms and their toxins on the other, trying to pull it down. In regard to the treatment, I would say that I do not advocate letting the fever entirely alone, even though it is not above 103 degrees, but if the patient can be made more comfortable by reducing the temperature, give him the treatment, provided it will not have a more harmful effect than the temperature itself. But let our treatment be directed principally to the removal of the cause producing it.

REPORT OF A CASE OF RAYNAUD'S DISEASE.

By Dr. J. N. Fogarty, Key West, Fla.*

Case: February 16, 1905, male negro, aet. 5, native of Key West, Fla. Well nourished, one of a family of six, all in good health. Father and mother both large, healthy people. Present illness began February 12th. Retired evening of February

11th at an early hour, feeling perfectly well; awakened next morning and complained to his mother that all of his toes were asleep, but suffered no pain; in fact, was able to run about and play all day and until bed-time. Up to this time family had paid no attention to child's condition. Morning of February 13th, child could not get out of bed; both feet were swollen from ankles to tip of toes, but from information elicited from parents there was no discoloration on this date.

Home remedies, such as application of flaxseed meal, etc., were resorted to. Pain and inflammatory condition increased steadily, but nothing serious was thought of condition of child until afternoon of the 16th, when I was called to render assistance.

On close inspection, I found that the ten toes were gangrenous, feet swollen and quite painful; temperature 102½, pulse 130, bowels open, tongue slightly coated, breath foul, spirits bright; family history negative except for the fact that the mother had undergone an operation for an amputation of the right arm above the elbow, due to an inflicted compound fracture sustained some years previous. This of course, had nothing to do with the present case. There was not the slightest history of a specific lesion to be found in the family. Condition of the child's blood vessels were negative; urine negative; after repeated tests no sugar could be found. Mental condition good.

Occurring in the tropics, the chance of frostbite was nil; no drug habit could be found; had never been an eater of cereals. Blood count favorable. Diagnosis: Raynaud's disease without discoverable cause.

Advised operation and requested that I be allowed to have all physicians of the city see the case the next day. Operation was refused, but was granted the privilege of a consultation.

February 17th, case seen by Drs. J. Y. Porter, C. H. Gardner, P. A. Surgeon of the U. S. Public Health and Marine Hospital Service, Samuel D. W. Light, and myself.

Gangrenous process increased considerably since the day before, now involving toes, nearly all of instep and some of both feet. All physicians agreed with me on advice of double amputation, but again family refused, stating that they would prefer to see the child dead.

I told them, while, of course, the matter was discretionary with themselves, that in a few days, on account of the odor of the parts, operation would be compulsory. No argument could get them to consent to operation, so I resigned the case. On the evening of February 21st, I was again sent for and, gentlemen, the odor, at this late day, was beyond description by pen.

*Read before Florida Medical Association.

No persuasion was now necessary for consent to operation. It was manifest to neighbors near and far. The bones of both feet were now exposed. Morning of February 22d, at 11 o'clock, double amputation was done by Dr. C. H. Gardner and myself, ably assisted by Dr. S. G. W. Light as anesthesiologist.

Operation lasted but thirty-five minutes and patient responded well; made an uneventful recovery; wound healed by first intention. The child since has had no recurrence of the disease and has enjoyed perfect health..

His patella now serve the purpose of his feet and he can get about as rapidly as any of his playmates; even the climbing of fences does not stump him.

INSOMNIA.

Dr. Elmore Palmer,
309 Plymouth Ave., Buffalo, N. Y.,
Ex-President of the Western New York
Medical Society.

"The innocent sleep,
Sleep that knits up the raveled sleeve of care,
The death of each day's life, sore labor's bath,
Balm of hurt minds, great Nature's second course,
Chief nourisher in life's feast."—Shakespeare's Macbeth.

The words of the great poet express as well as any the imperative need of sleep, the comfort which it brings, its absolute necessity to the integrity of the human organism.

And the lack of sleep is correspondingly distressing. When the loss is only moderate the sufferer can still live, but his vital forces, deprived of their needed renewal, soon begin to decrease, and both body and mind suffer in consequence. When entirely deprived of sleep the strongest man will soon die; the final end being usually preceded by a period of insanity. It is said that in China the severest torture known is to deprive the victim of sleep by means of noises and lashings until after a few days he dies a raving maniac.

There are some diseases of the nervous system which are almost as efficacious in banishing sleep, and the patient is often driven to actual insanity or suicide. These are, of course, extreme cases, but there are thousands of others of greater or less severity whose nervous system is shattered and whose health is permanently ruined by their inability to obtain the normal amount of sleep each night.

Insomnia seems to be particularly prevalent in the United States; our manner of life and our modes of work are the principal

causes of it. In this country nearly everybody goes in a hurry, our work and our pleasures are all carried on under high pressure, our brains are crowded with plans and schemes concerning our business or our social life. When the natural hour for sleep comes we have still many things to do, and the tired body is driven on until far toward morning. It is no wonder that under such circumstances the health gives way; the period of repose that should come after each meal in order to let the blood go to the stomach and bowels is almost unknown in our life, the meals are eaten hurriedly and hardly masticated at all. This brings indigestion, which when often repeated, develops into chronic dyspepsia.

As a consequence of the poor digestion and of overwork the body is not supplied with sufficient nourishment, and the brain being the organ most used is the one first to feel the strain. Mental weakness, an inability to fix the attention upon one's affairs for any length of time, is one of the results, and this is nearly always accompanied by restlessness and the inability to sleep.

Such patients must get rest at any price, and if the physician does not procure it for them they will fall into the habit of taking some pernicious drug which will give it, although they well know the danger of such a practice.

A good many cases of this class come under my care, and I will append the notes on a few in order to illustrate my manner of handling them:

Case 1.—Mr. P. C. D., unmarried, book-keeper. He complained that every afternoon at about three o'clock there came on an exceedingly severe spell of nervousness; at times it was so bad that he could not continue his writing. In addition to this he was unable to sleep well at night. He was evidently in a very exhausted state when I first saw him.

Upon a careful examination I was unable to find any organic lesion; there was merely a nervous exhaustion. He told me that at times he would have spells of faintness in which he did not actually lose consciousness but he turned very pale and felt giddy.

I decided to use nothing but bromidia, and let him continue his work as before. Directed him to take a teaspoonful of the preparation half an hour before each meal and one at bed time. If he should happen to lie awake for any length of time during the night he was to take another teaspoonful of the same. In addition to this I instructed him to take a teaspoonful of bromidia at half past two o'clock every afternoon, half an hour before the daily spell of nervousness usually came on.

His improvement under this treatment

was clearly evident during the first week, and I had him continue it in gradually reduced doses. At the end of a month all treatment was discontinued for he was completely and permanently cured.

Case 2—Mrs. G. H., married, age 27. This patient's principal trouble was insomnia; for over a year she had been able to sleep only by "cat naps." She is a dress-maker, and worked very hard. In spite of these conditions her general health was fairly good; she was slightly constipated and her urine was scanty.

I directed her to try and drink at least a quart of pure water every day, and more if possible. She was also instructed to take a teaspoonful of Rochelle salts every morning.

For the insomnia proper I prescribed a teaspoonful of bromidia four or five times in the twenty-four hours.

This treatment cured her in a month. At present she is doing less work and has arranged her occupation so that she may live more regularly; she is enjoying perfect health.

Case 3—Miss L. J. P., age, 30, unmarried. She is a society woman. At her first visit she told me that she was utterly unable to sleep at night; in her own words she was "as wild as a hawk at night." During the afternoon she was usually able to sleep a couple of hours. She suffered slightly from indigestion and also from constipation. Her menses were scanty and irregular.

My first care was to order a regular and rational diet; I gave her also a laxative mixture in order to establish thorough elimination. Her principal treatment consisted in a teaspoonful of bromidia before each meal and at bed time. I instructed her to exercise out of doors for several hours each day, and not to sleep during the afternoon.

When she returned at the end of a week quite a change was noticeable in her appearance. She was much improved in every way, and told me that she was now sleeping well all night. The same treatment was continued for a month longer, by which time she was cured.

Since that date, now several months past, she has had a few occasional wakeful spells, following exciting and fatiguing social functions, but she keeps a bottle of bromidia in the house and a single dose of it always quiets her and procures a night's rest.

IMPORTANT PRESCRIPTIONS IN THE TREATMENT OF MALARIA.

By John Albert Burnett, Dean Spring, Arkansas.

The following prescriptions will be found to be of great value in the treatment of malaria, and physicians who practice in

malarial districts will do well to try them. In remittent fever when the fever is high and stimulation is needed and no time to wait to bring the fever down, the following can be used with good results and no harm will result to the patient by its use.

R Quinine sulphate, gr., 72.
Acetanilide, gr., 48.
Capsicum, gr., 24.
Caffeine, gr., 12.

M. Sig. Divide into 24 powders and give one every three or four hours. To keep a chill off with this compound give one powder every two hours until four or five doses are taken, beginning so the last dose will come one or two hours before the chill is due. This compound will be found to be far more reliable than quinine alone. Of course its use should be preceded by some good cholagogue purgative, such as calomel, podophyllin, leptandra, euonymus, chionanthus, etc.

In cases where quinine is indicated without more stimulation being needed than ordinary doses of quinine will give and in patients where quinine produces unpleasant head symptoms the following will prove to be of much value.

R Quinine sulphite 3j.
Hydrobromic acid dilute, 3ij.

M. Sig. Dose 5 drops in capsules or diluted as desired when needed. The hydrobromic acid dissolves the quinine, makes its action quicker and as it acts like the bromides it prevents all unpleasant symptoms that quinine produces in some patients. Most all patients who do not tolerate quinine very well can take this and not know they are taking quinine at all.

In cases where quinine alone is indicated, or where it is desirable to give it in solution for quick action, or when the stomach is in a sluggish condition, the following can be used:

R Quinine sulphate, 3j.
Aromatic sulphuric acid, 3ij.

M. Sig. Dose as needed. This can be added to syrup if desired. Patients tolerate it better than quinine when given alone.

In sub-acute cases, as well as chronic and some acute cases, the following will prove to be of much value:

R Arsenic, gr. j.
Ext. nux vomica, gr. v.
Aloes.
Iron sulph. or reduced aa. 3ss.
Quinine sulphate, 3j.

M. Sig. Divide into 24 powders. Dose, one powder every four hours, until two chills are missed and then one three times a day.

Another prescription which is used by many physicians in malarial localities, and known as double ought is as follows:

R Quinine sulphate, 3ij.
Tinct. iron, 3vj.
Tinct. iodine, q. s., 3j.

Sig. Fill No. 00 capsules and take one after each meal

Most all works on material medica and therapeutics say that quinine and iodine are incompatible, but this is used just the same and with good results if the patient can stand it. It is occasionally not very well tolerated by the stomach.

Here is another prescription which is also used by some which is almost like the one above.

R Quinine muriate.
Tinct. iodine, aa. 3ss.
Tinct. iron, 3ij.

M. Sig. Dose, 15 drops after meals. It can be given in capsules. I find that a No. 00 capsule will hold about 20 drops of most liquids.

In cases where there is cankerous conditions in the system or general weakness as well as cases where the limbs are prone to become cold, the following will prove to be of great value. It will sustain the patient's strength in most any condition as well as prove to be of value in almost any case of malaria.

R Tinct. capsicum, gtt. v.
Fld. ext. myrica cerifera.
Fld. ext. hydrastis, aa. gtt., ij.
Fld. ext. cinchona, gtt. v.

M. Sig. This is one dose to be repeated as needed.

The following is Dr. B. G. Henning's formula of his anti-malarial pill. Dr. Henning is professor of practice of medicine in Memphis Hospital Medical College and had quite a number of years' experience in practice in Memphis—a malarial district—on the Mississippi river. Each pill contains:

R Acid arsenious, gr., 1-20.
Calomel, gr. 1-10.
Iron reduced, gr., j.
Quinine bromide, gr., ij.

It is no doubt a useful compound, but I think for general use leptandra podophyllin or other remedies should be used in place of calomel.

Madden's anti-malarial pill, milder, contains:

Strychnine, gr., 1-40.
Arsenious acid, gr., 1-24.
Reduced iron, gr., 1.
Quinine sulphate, gr. 1.
Purified aloes, gr., 1-6.

Madden's anti-malarial pill, stronger, contains:

Strychnine, gr., 3-100.
Arsenious acid, gr., 1-20.
Reduced iron, gr., 1-15.
Quinine sulphate, gr., 1-15.
Purified aloes, gr., 1-5.

Madden also has a pill same as the milder formula with gr., 1-120 of phosphorus and one same as the stronger formula with 1-100 grain of phosphorus.

Harper anti-malarial pill contains:

R Quinine sulphate, gr., 1½.
Reduced iron, gr., 2-3.
Arsenious acid, gr., 1-30.
Strychnine, gr., 1-50.
Ammonium picrate, gr., 1-5.
Ext. colocynth comp., gr., ¼.

McCaw's anti-malarial pill contains:

R Quinine sulphate, gr., 1.
Dried iron sulphate, gr., ¼.
Gelsemium, gr., ¼.
Podophyllin, gr., ¼.
Oil black pepper, gtt., 1-16.
Arsenious acid, gr., 1-80.

Dumas' anti-malarial granule or pill contains:

R Strychnine, ars., gr., 1-250.
Quinine ars., gr., 1-134.
Iron ars., gr. 1-12.
Quinine hydroferrocyanide, gr., 1-6.

Dose one granule every two hours until a feeling of stimulation is experienced, then one every four hours. I have used the Dumas formula with good results.

The above pills can be obtained from most any pharmacy and here is another one known as anti-malaria:

R Quinine sulphate, gr., 2.
Cinchonidine sulphate, gr., 1.
Dried iron sulphate, gr., ½.
Arsenious acid, gr., 1-20.

Also another well known pill known as anti-periodic, which is:

R Cinchonidine sulphate, gr., 1.
Podophyllin, gr., 1-20.
Strychnine sulphate, gr., 1-33.
Dried iron sulphate, gr., ½.
Oleoresin capsicum, gr., 1-10.

Some houses put up a pill same as above with 1-20 grain of gelsemium addition.

I have used the following formula with real good results in many cases and recommend it:

R Fld. ext. gentiana.
Fld. ext. hydrastis, aa. 3lv.
Fld. ext. cascara, 3ij.
Salicin, gr., xx.
Tinct. myrrh comp., 3j.
Simple syrup, 5vij.

M. Sig. To keep a chill off give a drachm every hour until six or eight drachms are taken, beginning so the last dose will come one or two hours before the chill is due. At other times give a drachm every three hours.

The following is also reliable:

R Fld. ext. simaba cedron, 3ss.
Fld. ext. gentiana, 3ij.

M. Sig. Dose, 5 drops as needed.

In many forms of malaria and especially in sub-acute and chronic forms I have used the following with good results:

R Powd. *alstonia constricta*, 3ij.
Berberine muriate, 3j.

M. Sig. To keep a chill off, give three grains every two hours until four or five doses are taken, beginning so the last dose will come one or two hours before the chill is due. At other times give three grains every three or four hours.

In old chronic cases of malaria after almost everything has failed give the following if the patient will take it:

R Iron ferrocyanide, gr., xxx.
Powd. *alstonia constricta*, gr., ij.
Powd. *hydrastis*, gr., j.

M. Sig. This is one dose to be repeated three times a day for a month or two.

The following is used by many and the late Dr. Ben H. Broadnax put much confidence in it:

R Comp. tinct. Iodine, 3ij.
Fowler's solution, 3ij.

M. Sig. Dose 10 or 15 drops before meals. It will take a good stomach to stand 15 drops and acid iron tonic after and between meals which is made as follows:

R Hydrochloric acid.
Nitric acid, aa. 3j.
Iron sulphate, 3ij.

M. Sig. Let stand twenty-four hours to digest, and it is ready for use. Dose two to ten drops in a glass of sweetened water. Make it about as sour as lemonade and sweeten to suit the taste, and it is about as good as lemonade. Full strength acids should be used in making this, and after it has stood a few weeks can be diluted with equal parts of water.

In many cases of malaria the following can be used:

Fld. ext. *sabbatia angularis*, 3 iij.
Fld. ext. *calamus*, 3j.

M. Sig. Dose, 10 to 30 drops as needed. To keep a chill off give 15 or 20 drops every two hours, until five or six doses are taken, beginning so the last dose will come about two hours before the chill is due.

In chronic "dumb" chills when the liver and spleen is enlarged use:

R Elixir potassium bromide, 3ijj.
Fld. ext. *grindelia squarrosa*.
Fld. ext. *polynnia*, aa. 3ss.

M. Sig. Dose one drachm every three hours.

I have used and use several other formulas besides the above. But most cases can be controlled with some one of the above, as far as antiperiodics are concerned. Of course other appropriate remedies should be used in connection with the above in most all cases of malaria. I am sure that any physician will be pleased who will test the above.

ABSTRACTS AND SELECTIONS.

MAMMARY SYPHILIS, WITH INVOLVEMENT OF THE AXILLARY AND SUPRACLAVICULAR GLANDS SIMULATING CANCER OF THE BREAST.

A case is reported by E. Beer, whose patient was a married woman of thirty-five years. Four months previously to coming under observation she had noted a mass in the left axilla and a few weeks later a similar mass in the upper half of the left breast. When seen there were noted also other nodular enlargements above the left clavicle, in the right axilla and above the right clavicle. The diagnosis of cancer was naturally suggested, but the masses were everywhere softer than cancer, the masses adjacent to the breasts were unusual in such a condition, while it was found that the posterior cervical lymphnodes was also enlarged. Syphilis was thought of, and this suspicion was confirmed by a pretty positive though meager history of specific infection. Consequently mercury was given hypodermically and the iodides were given internally in increasing doses. In one month the breast had become normal and the general condition had in every way improved. In another month nearly all the glandular swellings had disappeared.

DIABETIC COMA IN CHILDREN.

Dupuy (La. Clin. Infant): Prodromal symptoms are very inconstant. The odor of acetone was found in but three of seventeen cases. Ebstein's cylinders were not noticed; diminution in the quality of urine was not pathognomonic. As to the period of invasion, the child often complains of acute epigastric pain, the abdomen is distended, constipation is almost constant, and there is nausea and vomiting of watery fluid. When coma supervenes the general state is already very bad, with great wasting and enfeeblement; the respiration is frequent (the inspiration being full and deep, the chest moving as a whole, remaining thus a few seconds and then falling with an effort in a short expiration). The heart is usually normal throughout. In coma the beats are regular, but progressively feeble (120 to 130 or even 150 to the minute). The polyuria which exists at the beginning becomes markedly diminished; the urine is clear, limpid and acid, containing sugar in abundance, but less than before the coma, during which it diminishes progressively until death. The sugar sometimes disappears completely. Albumin may be found, but in small quantities, and quite

late. The smell of acetone is less marked in the urine than in the breath. There is no marked aberration in the nervous system; patellar reflex is often abolished; the lassitude and apathy of the prodromal period becomes accentuated; somnolence is more marked. When the coma is confirmed the pupils are fixed, equal, dilated, or contracted, normal reflexes are abolished; extremities are blue, limbs flaccid, tongue dry, dyspnoea intense, respiration 32-48 per minute, pulse rapid and filiform. Death takes place without convulsions.

AUTOLYSIS IN SURGICAL THERAPEUTICS.

That intracellular ferments are of great importance is shown by Helle (*Archiv. für klinische Chirurgie*, Bd. lxxvii, Heft) who has shown that a ferment is set free by the destruction of leucocytes in pus as well as by the action of X-rays on splenic pulp, which is able to dissolve fibrin flakes. The action is universal and is not due to one substance, e. g., lecithin, as has been claimed. The ferments if present in large amount are destructive to living cells, and therefore necrosis may follow the exposure to the X-rays of parts containing many leucocytes—e. g., abscesses or even acutely inflamed parts. The ferments are also bactericidal, and rabbits injected intraperitoneally with alueronat to produce leucocytosis and later injected with pus cocci or colon bacilli, recover from larger doses if they are exposed to the X-ray, which destroys the leucocytes and sets free the ferments. It is probable that Bier's hyperemia and some forms of counter-irritation act in the same way, as increase of purin excretion, indicating increased destruction of leucocytes, follows their use.

TUBERCULOUS RHEUMATISM.

Under this name are to be included, according to A. Poncet and M. Mailland (*Monographies Cliniques*), a series of manifestations, apparently rheumatic and of tuberculous origin, residing either in the articulations (articular tuberculous rheumatism) or in other organs, as tendinous sheaths, muscles, nerves, or viscera (abarticular tuberculous rheumatism). Whether these conditions are single or associated, their lesions are most frequently distinct from the habitual lesions of tuberculosis. Their manifestations range all the way from hyperemia and exudation to acute or chronic inflammation, without specific products. Tuberculous rheumatism belongs to the large class of infectious rheumatism, or pseudo-rheumatism. Another fact that imparts to this condition the distinction of

being a new pathological entity, is the surgical experience that these cases have none of the tuberculous lesions in the classic sense of that word. They are exclusively inflammatory lesions, in no way distinguishable from those produced by other infections.

THE TREATMENT OF DIPHTHERIA.

H. W. McCullagh (*Dublin Journal of Medical Science*): The prophylactic treatment of diphtheria comprises the isolation of the patient, the administration of antitoxin to all exposed persons, the destruction or sterilization of all objects in contact with the patient, and the free use of antiseptics by those exposed. The patient should receive large and early doses of antitoxin, perhaps intravenously, and if there is an associated streptococcal infection, antistreptococcal sera may be tried. Antiseptic sprays and washes may be applied locally. Steam inhalations and emetics may relieve dyspnea. Nasal cases should be irrigated. The author prefers tracheotomy in private practice. To aid the sera he recommends perchlorid of iron 5-20 M with quinine gr. j. every two to four hours. With this may be given potassium chlorate, 1 to 5 grains. Complications should be watched for.

SCOPOLAMINE AS AN ANESTHETIC.

Sharp (*New York and Philadelphia Medical Journal*) says that a few of the advantages of scopolamine anesthesia are: The harmlessness of scopolamine—while the pulse is accelerated the quality remains good and strong; the absence of the stage of exhaustion; the small amount of chloroform used; the natural sleep after the operation, extending over the period of post-operative pains; the absence of nausea and other ill effects which usually follow the use of chloroform alone; the deep, full, and regular respiration; the ability of the patient to take water or even food shortly after awakening without nausea or vomiting. This last the author believes to be of great importance. By being able to give liquids the thirst which follows operation is relieved, and at the same time a natural vehicle to carry away waste matter is furnished.

THE GOPHER—A POSSIBLE SUBSTITUTE FOR THE GUINEA PIG.

S. W. Heweston makes a preliminary report on the subject of using the gopher instead of the guinea pig for animal experimentation in tuberculosis, as in certain parts of the country they are more easily

obtained than are the latter animals. A series of inoculations was made and its results analyzed. The author says that his work distinctly proves the susceptibility of the gopher to tuberculosis, and places in the hands of medical men residing in the gopher belt an additional aid in the diagnosis of obscure cases, be they renal, pulmonary, or glandular. Its use would be limited to cases in which the presence of tubercle bacilli could not be demonstrated with the microscope, owing to their being present in small numbers. To obtain quicker results the injections might be made in larger amounts directly into the peritoneal cavity. If this were done, however, a certain percentage of the test animals would probably die from acute septic conditions, the mortality from this cause depending on the virulence of the associated infection. It is to be hoped that further experiments will show that the gopher possesses the same happy susceptibility to other diseases as he displays toward tuberculosis.

DIAGNOSIS OF CUTANEOUS SYPHILIS.

E. A. Fleischkin concludes from his observations and studies that the elements of diagnosis in cutaneous syphilis have only an arbitrary value. The element of time is unreliable; it may happen that simple sores with consequent gland swellings will develop in intervals corresponding to the periods of syphilis. Regionary lymphadenitis is not absolutely pathognomonic of syphilis. Indolent and indurated inguinal and cubital glands may follow infection of simple wounds. The ensemble of all syphilitic symptoms may be closely imitated by non-specific dermatoses. Syphilis can only be diagnosed with absolute certainty when based on positive as well as on negative findings, i. e., when we not only find the characteristic elements of syphilis, but when we can with certainty exclude all other skin diseases that may appear with similar symptoms.

SIMULATION AND MENTAL DISEASE.

Siemerling (Berliner klinische Wochenschrift) says that the detection of pretended insanity has been greatly facilitated since it has come to be recognized that simulation and mental disease often occur together. On the other hand, it is unwise to go as far as do those authors who claim that pure simulation is never observed. The mere fact that a suspected individual confesses to simulation is not sufficient to permit the conclusion that the condition has actually been a pretended one, for the insane not infrequently make assertions to

this effect. Individuals attempting to simulate insanity usually betray themselves through the exaggeration of their actions. It must be remembered, however, that in katatonia, the hysterical psychoses, and the excitable forms of imbecility, abrupt contrasts in demeanor and the grotesqueness of the clinical picture often convey an impression of artificiality. The forms of mental disease which have most often been simulated in the author's experience have been idiocy, mental depressive conditions of slight intensity, paranoia, and lapses of memory. If patient observation alone is not sufficient to unmask the deception, the author recommends hydropathic procedures and the application of the electric current.

PARAVAGINAL OR ABDOMINAL OPERATION IN CARCINOMA OF THE UTERUS.

G. Gelhorn (St. Louis Medical Review): In a discussion on the relative merits of the two operative routes, comes to the following conclusions:

1. The radical abdominal operation, as far as the routine ablation of the lymphatic organs of the pelvis is concerned, has thus far failed to yield the desired results.
2. On the other hand, the eradication of the parametria has been found to reduce greatly the percentage of cures.
3. Consequently, the simple abdominal and vaginal operations which do not include this procedure must be discarded.
4. For the extirpation of the parametria, Wertheim's method is the best of the abdominal operations.
5. It has, however, certain advantages compared with the para-vaginal method of Schuchardt.
6. Considering the encouraging results of igniextirpation, a combination of thermocautery with paravaginal extirpation gives promise of further improvement in operative results.

ON THE PERSISTENT FORM OF ERYTHEMA NODOSUM.

W. Pick (British Journal of Dermatology) describes two cases in which lesions somewhat similar in character to those of erythema induration of Bazin occurred in the legs of two young women, aged respectively seventeen and nineteen years. In both cases the calf was the part chiefly affected, and the lesions consisted of subcutaneous nodules, some of which persisted, while others involuted. The histological changes present were confined to the subcutis and consisted of a dense infiltration of round cells, especially located around the sweat-coils and blood-vessels. Many of these cells

had spindle-shaped or oblong nuclei. Masses of them were present also in the septa between the fat lobes. According to the writer these cases showed a close analogy in their symptoms, localization, and anatomy to the acute erythema nodosum, and differed from the erythema induratum (Bazin), which he believed to be a tuberculous manifestation, on account of its histology, its reacting to tuberculin injections, and the facts that bacilli had been found by Phillipson and inoculation in lower animals had given positive results.

THE DIAGNOSIS AND TREATMENT OF ANEMIA.

Harlow Brooks describes the chlorotic and secondary anemias, discussing their respective causes and clinical courses. In speaking of treatment he lays special stress upon the need of fresh air and sunlight. In the warm months, children can go about with almost no clothing. To the foregoing carefully supervised exercise may be added, except in those instances in which we find renal or cardiac changes. Here rest and quiet are indicated. Change of habitat and climate is desirable in many cases. The gastroenteric tract must be carefully regulated. Gastric atrophy or dilatation are often present, calling for lavage and associated local measures. Predigested foods may be required with intestinal medication. Nitro-muriatic acid has yielded excellent results in some cases of pernicious anemia. Abnormal fermentation in the bowel should be checked, as we thereby limit the transformation of certain amounts of iron in the food into the insoluble iron sulphide. Saline aperients assist us in this direction. The diet of each individual case must be made the object of careful study. Foods rich in albuminous iron should be selected. Milk as an exclusive diet is not advised. Strictly medical treatment is often disappointing. The kind of iron is of secondary importance so far as concerns chlorosis and the simple acute secondary anemias. Inorganic preparations have given the author the best results. Mercury and arsenic are often valuable adjuvants in severe and chronic cases. The author has never seen any benefit follow oxygen inhalations.

THE INDIVIDUAL TREATMENT OF DIABETES MELLITUS.

Henry S. Stark (Medical Record) advises the treatment of the individual patient in diabetes mellitus rather than the arbitrary treatment of the disease by stereotyped methods. The severity of the pathologic process can not be measured by the amount of sugar in the urine. We should study the power of the patient to assimilate

carbohydrates; his general state, whether anemic, plethoric, obese, or emaciated; his mental attitude, his digestion, his ability to maintain nitrogenous equilibrium, the complications, and the preferences of the patient as to diet. We can not put our patients on a diet that starves them or carbohydrates, but only lessen the amount taken. Under prophylactic treatment the author advocates a modified diet for the children of diabetics, with a systematic examination of the urine. The occurrence of an excess of uric acid may be a forerunner of diabetes. Treatment must be systematic. The patient should be restrained from gratifying his appetite for food and drink. If emaciated and weak, a diet of increased fats is valuable. For glycosuria and polyuria codeia should be given only in very moderate doses. For the skin lesions about the genitals the author uses a soothing lotion and protective applications. In bad cases catheterization for a time works well. We should prevent diabetic coma, as when it is established very little can be done. For this he uses alkalitherapy, purgation by croton oil, and bloodletting if necessary.

ELECTRICITY AND CHRONIC CONSTIPATION.

Paul Ch. Petit (Gazette des Hopitaux Civils et Militaires) speaks of the good effects of electricity in cases of chronic constipation. In instances of temporary constipation, the return of the ordinary regimen and purgatives generally suffice to overcome the condition. But, for the chronically constipated individual, retention of fecal matter is the habitual state. Certain individuals do not have a daily evacuation of the bowels, this condition being normal for them. They can not be said to be troubled with constipation any more than those individuals who have two stools a day regularly, can be said to have diarrhea. The personal equation must always be considered. Besides the number of evacuations, their quantity and composition must also be considered in these cases. For many, constipation is a real menace. It is rarely that these patients are in good condition. Rectal affections are very common among them—fissures, hemorrhoids, and so on. The digestion is generally out of order. Vertigo, temporary deafness, and headache torment them. They are not capable of enduring prolonged labor. Little by little neurasthenia develops. This affection never appears suddenly. It is common to middle age. Women seem to be affected more often than men. These patients—not considering the divers clinical aspects—may be grouped into two large classes. In the first spasm of the intestine is the prominent condition, in the second, atony is par-

amount. The writer concludes his paper by discussing the action of the galvanofaradic method of giving electricity. The galvanic current acts on the intestine through the mediation of the abdominal nervous system. The current abolishes spasm, and increases the secretion of the intestinal glands. The faradic current, light and rapid, offers a true massage to the parts treated. It thus stimulates the circulation. By this method, then, all of the abdominal tissues are reached. In many cases, from fifteen to twenty treatments are sufficient. The results of this method of treatment have been encouraging.

THE PREFERRED OPERATION IN THE RADICAL CURE FOR CRURAL HERNIA.

Salvatore Salinari (*Giornale Medico del Regio Esercito*) tells us that there is no unanimity of opinion as to the best operation for the radical cure of crural hernia. There is slight tendency to recurrence of crural hernia, and it is usually small in size. On account of the fibrotendinous nature of the tissues, which allow of the passage of the hernia, and the peculiar conformation of the parts it is difficult to obtain exact coaptation of the parts and a perfect union, such as to hermetically seal the opening, and give a perfect obliteration of the crural canal. The author believes that the operation that corresponds best to the needs of the patient is the operation of Bassini. It avoids the formation of an acute angle, which might press upon the veins of the part, and give rise to thrombosis of the vein and embolism in the pulmonary artery. The only objection is the difficulty of preventing the existence of an infundibulum, which might cause recurrence.

GALL STONES.

Morison (*Edinburgh Monthly Journal*) notes the following facts: The gall stones may be present and cause in an uninfamed gall bladder no symptoms. Cholecystitis is the necessary irritant. If symptoms have once occurred they usually recur. Gall stone attacks are exceedingly painful, because when cholecystitis is present, the efforts of the gall bladder are to expel its contents. Serious symptoms are usually due to stones which are in the ducts. Repeated attempts on the part of the unstriated muscle of the gall bladder to expel its contents lead to its hypertrophy. If these attempts are unsuccessful inflammation and degeneration of the organ result, possibly gangrene and rupture, the latter resulting from tension. Pancreatitis may simulate gall stone disease and

make a diagnosis impossible. The general condition in acute gall stone disease is that produced by acute septicemia, and is caused by infectious germs. The gall bladder may contain bile, pus, or clear mucoid fluid. Spontaneous cures sometimes occur, but one is more likely to meet with fibroid thickening of the bladder, ulceration of the ducts, abscess of the liver, and other serious conditions. The treatment of this disease is surgical at the earliest possible moment.

A NEW OPERATION FOR MODERATE SHORT SIGHT.

Ernest B. Maddox (*British Medical Journal*) tried the pressure-massage treatment on a boy, sixteen years old, with only temporary benefit. The patient was training for Woolwich, but failed to pass his examinations on account of his ocular defect. After repeated requests from the boy, the writer undertook the operations which he had suggested. These consisted in flattening the cornea, first in one meridian and then at right angles. Without chloroform, the writer began with the most difficult meridian, namely, the horizontal. He first dissected up an conjunctival flap, and threw it over the cornea. He then introduced a triangular iridectomy knife between the reflected conjunctiva and the sclera, and entered the anterior chamber. The operation was extremely delicate, for the peripheral nature of the incision in the very nervous and mobile eye, made the iris prolapse again and again, especially after the incision was enlarged above and below with a probe-pointed knife, which was the next stage of the operation. Only a very large incision is capable of producing a regular flattening of the cornea. At last the iris was reposed and the conjunctival sutures inserted so as to exert considerable traction on the flap. Healing was painless and uneventful. The second operation was far simpler than the first. The incision was made with an ordinary cataract knife, downward. The healing was equally successful. The patient, after a term of study, successfully passed his examinations.

GANGRENE OF THE TESTICLE IN GONORRHEA.

Buschke (*Deutsche med. Wochenschrift*) reports a case of a twenty-seven-year-old man afflicted with gonorrhea which resulted in necrosis of the testicle and abscess formation, which destroyed the entire organ. The accompanying epididymitis was not severe. After opening the abscess and extricating the tunica vaginalis together with the testicle the patient recovered. The cord was not swollen or painful.

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EDITORIAL.

"SEND YOUR NEURASTHENICS TO COLORADO SPRINGS"

What shall we do with our neurasthenics? the editor of *The Medical Progress* suggests that we send them to Colorado.

When the green gets back in the trees and there is fresh bud and bloom along the roadside, the allurements is to the country, where the tension of civilization may be relaxed a little.

We all know that a little recreation is not a dangerous thing. The fishing-rod, rifle and kodak—the golf-stick, tennis-racquet and bicycle, are found to be just as vital as the ledger, the ticker and the typewriter. In fact, the earning of a living is better accomplished by varying the task with simple outdoor pleasures, because these latter reinforce the waste of brain and nerve and give courage for the fight and invigorate the nervous patient.

THE CLIMATE OF COLORADO IS DELIGHTFUL.

The monthly mean temperature at 1:00 p. m. for January is given at 28 degrees; for May, 74 degrees; July, 85 degrees; August, 81 degrees; September, 72 degrees and December, 45 degrees. One may experience either extreme by going up and down the scale of altitude, or advancing into and retreating from the mountains. When summer heat is most intense a step into the shade always brings relief, because the air quickly parts with its warmth. A difference of 50 degrees between sunshine and shade is not uncommon. The Colorado summer may be likened to that of Manitoba and the White Mountains.

A short and pleasant winter is the rule. Winter does not begin until the middle of December, and ends by the first of March, although there may be occasional snow falls in late March and early April, which quickly disappear. Then a cool spring sets in, continuing until the latter part of May, when summer opens. This latter is the charming period of the year, fields and forests, mountains and plains being verdure-clad. Summer weather continues until October in the valleys and on the plains.

Showers are frequent during June and July, especially in the afternoons. They serve to cool the air and lay the dust, and do not seriously mar outdoor pleasures.

Autumn is also a delightful season. For the most part the fall months are warm, but seldom too warm or too cool for comfort; while cloudless skies, persistent sunshine and a mild, pure atmosphere prevail almost without interruption.

Tourists who have made a careful study of Colorado unite in asserting that September and October are incomparably the finest months of the whole year.

It is to be regretted that so few persons are able to prolong their stay in Colorado until the late fall frosts have made the hill-country uncomfortably cool. For when the red is in the trees and the crisp dawns and twilights give a tang to the mountain air, outdoor life is most delightful. The early autumn days are sunny and clear as a bell. The great vacation army would heartily endorse such a reform in educational methods as would postpone the beginning of the fall school term, so that pupils and teachers and parents could linger longer in the Rockies.

A TRIP TO PIKE'S PEAK IS ALWAYS ENJOYABLE.

Pike's Peak—altitude, 14,108 feet—is more widely known than any other mountain in the far West.

There are other monarchs of the hills whose bleak tops are lifted a few hundred feet higher into the upper silences; but they generally rise only a short distance above surrounding elevations, and the views

from their summits are circumscribed. Other peaks may be as majestic in outline—they are mainly situated in inaccessible regions.

The popularity of Pike's Peak in a measure arises from the circumstances connected with and following its discovery. Maj. Zebulon M. Pike, a brave soldier and adventurous traveler, visited the locality in 1806 and ascended the "Great Snow Mountain" half way to the summit. His graphic recital of the ascent fascinated the English-speaking world. The Peak immortalizes his name.

"Pike's Peak or Bust," and its kindred story, lives in the simple annals of Western life, linked with the sturdy romance of that period.

The location is fortunate. Pike's Peak is nearest the great plains of any of the giants of the Front Range, and therefore most readily reached from that section.

Another prime factor is the ease with which the Peak may be climbed. The wayfarer pays his five dollars and the cog-wheel railway completes the transaction by quickly carrying the passenger to cloudland and back in a luxurious car, moved by steam, a propulsive power never tiring and never unequal to the task. The Manitou & Pike's Peak Railway was completed in 1891 and cost a million dollars. In its nine-mile course it easily climbs 7,518 feet at an average grade of sixteen per cent. and maximum of twenty-five per cent. At exposed points the track is securely tied to masonry cross sections; the maximum curvature is 16 degrees; there is no trestlework and only four iron bridges. The train can make eight miles an hour; its time-card is four. The Abt rack rail is used, forming a continuous double ladder in which the locomotive's toothed wheels work. This system is in operation on two roads in Switzerland, up the Rigi and Pilatus.

The coaches each comfortably carry fifty persons; seats are arranged to afford level sittings. Starting at Englemann's Canyon, close to the Iron Springs of Manitou, the train ascends Ruxton's Creek, a sparkling mountain stream whose course it follows for two and three-fourths miles. The Half-Way House is reached at the foot of Grand View Rock. For two and one-quarter miles there is a comparatively level stretch of track through Ruxton and Aspen Parks. Leaving the park section the train ascends at a steeper grade past Windy Point to the summit.

The field of vision includes a panorama of 50,000 square miles, taking in the Raton Mountains and Spanish Peaks; Pueblo and Canon City; the Sangre de Cristo range; Gray's and Long's Peaks, Denver and the plains. Ordinary forms of measurement and comparison avail little. More by faith

than by sight must one realize that yonder hillock is a great peak, and that each rough fold in the earth's surface horizonward is a mighty range of mountains. On the summit the barometer stands at 17 inches and water boils at 184 degrees.

COLORADO SPRINGS.

Situated on the western edge of the Great Plains, five miles distant from the easternmost range of the towering Rocky Mountains, is the city of Colorado Springs. Its favorable altitude (5,992 feet) and convenient location with respect to transportation facilities, has attracted a permanent population of 30,000, which is swelled by thousands of visitors during the summer-tourist season.

While pre-eminently an all-year-round resort for invalids and pleasure-seekers, it has a strategic commercial importance from the fact that at no other point between Pueblo and Denver is there a practicable passage through the mountain backbone. Colorado Springs is the midway gate to the western section of the State.

The tourist has stamped the place as his own. From across the seas have come hundreds of glouc-trotters. Frequently one of them falls in love with the city, buys property, beautifies it and calls the spot home. Hundreds of wealthy residents of our own land have done the same. As a sequence, witness the profusion of villas which line the principal avenues. Resultant of this influx, and the proximity of merry Manitou, Colorado Springs has no rival in the West from a social standpoint.

Colorado Springs is an attractive city, tidy and prim as a young miss in her teens, and with much of the same jauntiness and color. There is an abounding air of youth.

You early become conscious of the fact that the citizens are as a rule smartly dressed and that they drive modish rigs. Drags, tandems, four-in-hands and automobiles abound.

Bicycles and automobiles are largely in evidence. Their devotees take advantage of the natural roads (never muddy, owing to the porous nature of the gravelly soil—peculiar to the city) to make frequent excursions through and beyond the city. Mounting a wheel or boarding a runabout and leaving the main business streets, which are lined with stately brick and stone blocks, you observe that the majority of the homes are as neat as a pin, surrounded by roomy yards thickly matted with bluegrass; that the houses themselves are of pleasing architecture, inclining to rustic effects, the paint brush being applied freely. Many of the residences represent the expenditure of money without stint, others are quite modest—mere cottages; but whether costly or not, the first impression of cleanliness deep-

ens. Neither the good wives of Holland nor New England war more valiantly against dirt than the women of Colorado Springs, whose chief delight seems to consist in having their homes absolutely without speck or stain.

Colorado Springs' wonderful growth since 1892 may be largely attributed to the development of the Cripple Creek gold mines, which are thirty miles distant on the opposite side of Pike's Peak. The gold output during 1905 was \$22,300,000. These mines have produced more than \$203,000,000 since 1891. A great part of this wealth flows into Colorado Springs, whose population has more than doubled in the past nine years, and whose bank deposits have increased six hundred per cent. in the same period, and now amount to about \$10,000,000. The transactions on the Colorado Springs Mining Exchange amounted to \$36,000,000 during the past five years. Health-seekers will here find many inviting opportunities for business investment, especially in real estate and buildings.

In counting up his civic possessions the inhabitant of Colorado Springs reminds himself that in two decades his city has achieved a population of 30,000, without aid from manufacturing interests. The cause? Climate and scenery, primarily.

He jots down such items as several magnificent hotels; 1,878 acres in public parks and 112 miles of streets; a water supply costing about three and a half million dollars; forty-five miles of electric railway; an unequalled telephone system; sewerage; fifteen costly public school buildings; a public library costing \$75,000; a handsome opera house and six clubs; sanatoriums, church edifices, Colorado College (the oldest institution of its kind in the State, with over 600 students and a handsome endowment), three hospitals and six trunk lines of railroad. In the past three years more than a thousand new houses and business blocks were erected in this wonderfully progressive and prosperous city.

But the one supreme fact is that here as nowhere else in Colorado is found an ideal climate for the tourist and invalid, and a wealth of attractions for the sightseer.

The Chamber of Commerce of Colorado Springs is an active body of public-spirited and representative men of the community. The secretary, Mr. Henry Russell Wray, will fully answer all inquiries addressed to him regarding Colorado Springs or the Pike's Peak region.

Every summer the city is filled with pleasure-seekers, many of whom stay a brief space of time and then flit up into the hills. This changing stream of life adds brilliancy and zest to social functions and crowds the streets with new faces. Ample accommodations exist for these visitors. The lead-

ing hotel of the city is the Antlers. It is the handsomest hotel edifice in Colorado, magnificently furnished, fireproof, and represents an outlay of \$1,000,000. It is set in the midst of beautiful grounds, surrounded by shade trees, and furnishes every comfort and luxury demanded by the best class of travel.

The accommodations at this famous hotel are equalled only by a few of the leading first-class houses in the East. Mr. Dunning, the genial manager, has for years been connected with Chicago's leading hotels. A trip to Colorado Springs is incomplete without a stay at the Antlers, be it only for a day or more. The hotel livery, in charge of Mr. Arnold, is of the very best and the intelligent and experienced help furnished by them makes their services very desirable. Sight-seeing in Colorado is largely by driving, which offers access to parts not usually visited on foot.

If so fortunate as to find a modest, vacant cottage of four or five rooms, the monthly rental is \$15 to \$35, unfurnished, and \$30 to \$75, furnished.

Persons of long purses, requiring handsome homes, can obtain elaborately furnished villas of eight to twelve rooms, renting for \$100 to \$500 per month.

Colorado Springs is one of the few resorts of the world in every sense suitable for those afflicted with pulmonary troubles. A light, dry, electrical atmosphere and abundance of sunshine are its prominent features. Readings from the thermometer may afford a clue to climate. It is more satisfactory to know that there are few days, summer or winter, when it is unpleasant to be out of doors. At all seasons the air is cool. The asthmatic and consumptive usually obtain relief or are cured, while the enervated build up new strength. One never suffers here from heat in summer nor cold in winter. As a winter resort, Colorado Springs is highly favored.

Nordrach Ranch, located on the Austin Bluffs, one and a half miles from the city limits, is a model sanitarium for those suffering with lung troubles. It was established in 1901. The central building is a spacious red sandstone edifice. The tent colony is close by, comprising fifty well-ventilated tents, constructed in octagonal shape, with shingle tops, oiled floors, strong, iron-framed doors, stoves and adequate furnishings. Here patients may live practically out of doors the year round, summer and winter. The rest cure is an important feature.

Among the near-by points of interest that should be visited are: Cheyenne Canyons (3½ miles), Williams and Ruxton's Canyons and Ute Pass (5 miles), Garden of the Gods (4 miles), Monument Park (10 miles), Grand Caverns (7 miles), Seven Lakes (18

miles), Seven Falls (8 miles), Manitou (5 miles), Broadmoor Casino (4 miles), Prospect Lake (2 miles), Monument Valley Park (adjoining the city, costing \$750,000, built by Gen. Wm. J. Palmer), Stratton Park (3 miles), Crystal Park Trail (8 miles); also Palmer Park and Glen Eyrie.

The Bear Creek Canyon drive is a notable attraction—it takes you through a pretty defile in the foothills, thence boldly up and across the steep lower slopes of the Rampart Range and down through Cheyenne Canyon.

'Bus fare from station to Colorado Springs hotels is 25 cents, fare in closed carriages 25 cents and up. Street-car service between depot and Manitou (7 miles), fare, 10 cents, which is also the rate via Colorado Midland R. R. between same points; street-car fare, depot to M. & P. P. Ry. depot (Iron Springs), Manitou, 15 cents.

One of the most notable features in the landscape around Colorado Springs is Cheyenne Mountain. This giant of the range rises abruptly from the mesa at a point four miles southwest of the city. Though not nearly as high as Pike's Peak, the great mass stands out boldly from its fellows unobstructed by foothills. The effect produced agrees with the common idea of a mountain, except that instead of rising to a sharp point, the ascent from north and south sides is gradual, culminating in a long, narrow ridge which sheers off abruptly front and back. A carriage road up the slopes affords an easy way of reaching picturesque Seven Lakes and Pike's Peak. This route is preferred by many.

The majority of visitors never get beyond Cheyenne Canyons, at the north end of the mountain. These are rugged gashes in the red granite, cut to a depth of 1,500 feet and threaded by brawling streams. The South Canyon is more than a mile long, its profoundest cleavage being arrested by Seven Falls. In that brief distance the tourist passes between massive walls rising perpendicularly a quarter of a mile and in places only forty feet apart. At the end of the canyon proper is a wall 300 feet in height down which pours a silvery flood, the descent being accomplished in seven distinct leaps. From the top of the falls the outlook is sublime. A quarter of a mile upstream one comes to Midnight Falls, and a short distance farther Juniata Falls appear. The narrowing brook may be followed above and beyond until it becomes a mere rill at the summit. Wild flowers, ferns and berries grow here in profusion. South Canyon is owned by private parties, an admission fee being charged. South Canyon affords the most beautiful scenery in Colorado and in beauty exceeds the most sanguine expectations.

At the foot of Seven Falls in South Can-

yon the Harvis Curio Company sell Colorado souvenirs, scenic photographs, pottery, etc., at less prices than such articles can be procured for at home.

Mr. Joseph Mills, at the same place, has a complete assortment of minerals for sale. These minerals come from the near-by mining districts.

The Cheyenne Burro & Carriage Co. furnish burros and carriages to South and North Cheyenne Canyons.

North Canyon is public property, maintained as a park. It is both longer and wider than the other chasm, with a more copious flow of water. Either may be ascended by means of carriages, by burros or on foot.

The above-mentioned region is quickly and comfortably reached in cars of the electric street railway. The distance from the city is four miles, and the round trip is made every quarter-hour; fare, 10 cents in each direction. The panoramic view of Colorado Springs from a point on the mesa not far from the canyon entrance is a striking one, clearly showing the city as if lying in the bottom of a shallow saucer. Instead of following the meadows along Cheyenne Creek, the road seeks the adjacent plateau. On this elevation, in the very shadow of the mountain, is Broadmoor Casino, a commodious building, newly built, and devoted to refined amusements. Every summer afternoon and evening a Hungarian orchestra of twelve musicians can be heard, and other entertainment of a like nature is provided. Back of the Casino is an artificial lake where boats may be hired. Facing the building on the eastern side is a large tract of land occupied by an expensive class of cottages. In their midst is Broadmoor Hotel, a delightful country inn. A country clubhouse is another attraction here. In the valley below, on the banks of Cheyenne Creek, are several so-called camps where good board and room may be had. Family tenting parties also come to this locality.

Six miles from the city is Monument Park, composed of two glades bordered by hills, along whose sides shafts of yellow sandstone, with projecting caps, rise in eccentric forms thirty to forty feet high. The Garden of the Gods, three miles west of Colorado Springs, has a world-wide fame and needs no further comment.

MANITOU.

Manitou and Colorado Springs are closely connected by railroads, boulevards and electric lines. Colorado City lies midway. They form practically one city. Colorado Springs is a place of fine homes, Colorado City is a factory site, and Manitou is a summer resort. At Colorado City (population, 5,000), are the shops of the Colorado Midland Railway, also four gold-ore reduc-

tion plants, each costing half a million dollars and handling half the ores from Cripple Creek. Wells are being sunk here for gas and oil.

Few persons come to Colorado without visiting Manitou. Like Saratoga, Baden-Baden, and other fashionable watering places, the natural mineral springs are a great attraction. Society has adopted Manitou for its fashionable balls and parties—their picnics, concerts and flirtations.

Manitou lies hidden among the hills that form the base of Pike's great peak, at an altitude of 6,324 feet. The village contains 1,000 persons. It has been built where stream and canyon permitted, and has an irregular contour. Each turn of the road reveals unexpected beauties of sky, or cliff, or stream. The merry Fontaine-qui-Bouille (boiling water) fed by melting snows, pirouettes through the town site and furnishes a music of gurgling waters. Along its banks and the sides of tributary Ruxton Creek are to be seen gems of parks; also buildings devoted to business or residence purposes, and paved driveways sheltered by multitudinous trees. At night, when the electric lights twinkle everywhere, the scene is like fairyland.

Manitou has three groups of mineral springs. The soda springs, Manitou, Navajo and Shoshone, are in the heart of the village; the two chalybeate or iron springs, Iron Ute and Little Chief, are located in Ruxton's Glen; while the Minnehaha and Hiawatha groups are half a mile up Ute Pass. Diseases of the blood, as well as dyspepsia and kidney disorders, quickly yield to these healing waters. The Iron Ute Springs are especially recommended as a tonic.

The hotels of Manitou are commodious edifices, equipped with all modern conveniences. They have accommodations for two thousand guests. They are well kept and well patronized.

The regular season opens the first of June and closes the first of October, but the Cliff House is now open throughout the year. The Cliff House is the leading hotel in Manitou.

The Cliff House, for thirty years under the one management, completely modernized, is situated within one hundred yards of the celebrated soda springs and the new \$30,000 bath house. It is the center from which start the many roads leading to the scenic points. Its reputation for cuisine, service and home-like surroundings needs no commendation. With two hundred and seventy-eight rooms, single and en suite, with parlors and baths, ladies' and gentlemen's buffet, billiards and bowling alleys, equipped with every modern accessory, nothing is omitted for the comfort and pleasure of its guests.

In the Cliff House the Manitou Livery and Transfer Co. make their headquarters. They furnish the best stock and safest drivers, which adds so much to the stay.

The leading hotels have excellent orchestras engaged for concerts and dances during the summer season.

If a cottage is taken by the year (furnished or unfurnished) the rent is reasonable. For short periods during the busy summer season prices are properly higher. Furnished rooms in private families are to be had at quite reasonable figures, varying with the accommodations. A family of two, by taking a room at a private house, can live at a total cost not exceeding \$12 to \$14 per week.

A new dancing pavilion has been erected in the upper end of the village near Iron Ute Springs. There is speedy electric car service every ten minutes between the Santa Fe depot in Colorado Springs and the Cog Road depot in Manitou; fare, 15 cents. Facilities for getting around in Manitou are much better than in former years. Patrons of a few summers ago would hardly recognize the place owing to numerous modern improvements which have added to comfort without marring the placid beauty of the scene. Manitou is provided with one of the largest and most complete bathhouses in Colorado. The building is an ornament to the town, being in the Queen Anne style of architecture, and equipped with all the modern improvements.

Among the scenic attractions of the place are Ute Pass, Rainbow Falls, Grand Caverns, Williams Canyon and Cave of the Winds. The Grand Caverns are located one and a half miles from Manitou, directly above Rainbow Falls, on the Ute Pass wagon road. While not comparable in size to Kentucky's mammoth cave, their location, high up in the hills, is unique, and their many artificially lighted chambers, avenues and byways possess a strange fascination. This underground world of weird rock formations and trickling waters is open to visitors at all seasons of the year. The most marvelous feature of the place is the concert hall, 500 feet high, where stands a stalactite pipe organ, on which the guides play simple airs. The effect resembles cathedral chimes.

At Manitou there are pleasant drives up and down winding mountain roads; also shaded paths close to clear brooks for those who prefer a leisurely saunter. The ubiquitous burro is here, willing, for a price, to "tote" you at a snail's pace. Or you can whiz along in electric cars at a mile-a-minute gait.

CRIPPLE CREEK SHORT LINE.

Nowhere have engineers built so daringly as in Colorado. To-day a rich mine is opened above timber line on a steep moun-

tain side where winds rage and snow remains until late summer. To-morrow incorporation papers are filed for a line of railway to the new camp, and before the pine shacks have sun-bleached up comes a puffing train from the under and outer world, bringing civilization's varied comforts in exchange for the yellow metal.

Such has been the story of the gold fields of Cripple Creek, that marvelously rich district lying west of Pike's Peak. Not content with two lines of railway, a third was finished in 1901, known as the Colorado Springs & Cripple Creek District Railway, or "Short Line," making possible the quick time of two hours over a shortened distance of forty-five miles.

While the building of a railroad signifies much commercially, the general tourist is more interested in the virgin fields of scenic beauty opened to view. Instead of following a path already prepared, the "Short Line" boldly assails the mountain backbone and forces a way over forbidding heights. Here a cut in solid rock or a tunnel through an intersecting hill, there a bridge thrown across dizzy abysses, yonder zigzagging to accomplish the ascent of great walls.

Colorado Springs is the starting point, with a run of six miles, before the great climb begins, passing immense reduction plants. Winding in and out of the foothills, there is a far view of the Garden of the Gods from your chair in the many-windowed observation car. Bear Creek Canyon is then traversed, left behind, and the ascent begins in earnest.

At Point Sublime a wonderful panorama is unfolded. At your feet, beautiful Broadmoor; to the northeast and miles away, Colorado Springs; in the far distance, the great plains. A sharp turn and the last picture is blotted out in a twinkling by a near vision of North Cheyenne Canyon, hundreds of feet below, while Silver Cascade Falls spin thin veils of gossamer in a skyward gorge. The rim is followed to Fairview, affording many glimpses of the canyon floor and opposite wall.

St. Peter's Dome, another point of interest, is close at hand, its huge granite bulk towering to commanding heights. Yet the train successfully essays the ascent of this stupendous rock by twistings and turnings that every moment reveal fresh landscape beauties. A pony trail leads to the extreme summit through pine and spruce forests. At Duffields, eighteen miles out, there is a last view of Colorado Springs. Three miles beyond, still to the west, is Summit, 10,000 feet up, the highest point until Cripple Creek is reached; and to the south you may see Pueblo, fifty miles distant.

A pretty natural park is entered at Rosemont, a small level space protected by som-

ber peaks. Down the western slope, along and across mountain streams and through thickly forested areas, you run along to Clyde, where is Cathedral Park, a strange jumble of fantastic and many-colored rock shapes.

But a short distance further and you enter the Cripple Creek district. Approaching Cameron, the Victor and Isabella properties on Bull Hill are in plain sight. Here the road divides. One branch goes to Cripple Creek, crossing Hoosier Pass at an altitude of 10,360 feet, and passing several big "producers." From the crest of Gold Hill may be seen the snow-capped Sangre de Cristo range, half a hundred miles westward, with busy Cripple Creek a thousand feet below. The other branch traverses Pinnacle Park, serves the mining towns of Independence and Goldfield, crosses Victor Pass, and terminates at Victor, where are located the Portland, Stratton's Independence and other noted mines.

Cripple Creek was discovered in 1891. The ore from this district for fifteen years totals \$165,000,000. The output for 1905 exceeded \$22,000,000, more than two-thirds of the gold mined in Colorado that year, the dividends exceeding twenty per cent. of output. There are approximately three hundred producing mines. A day can be pleasantly spent touring the surface in "whizz cars," from town to town and dump to dump—and another day profitably devoted to inspection of the underground world.

THE CITY OF DENVER.

Denver attracts from the very first. It is a clean city; a well-built city; an up-to-date city. There is lots of animation there. Take a walk through the business center and note the numerous modern buildings. The streets are always filled with a busy and well-dressed crowd. Notice the large stores with their ample stocks; these places are filled with shoppers. The hotels are numerous, large and well conducted. They are better than hotels in many much larger American cities. A New Yorker or Bostonian feels at home in them.

You will observe that the streets are well paved, well "side-walked" and well shaded. At night they are brilliantly lighted by electricity. Imposing residences, surrounded by extensive grounds, remind the visitor that the wealth made in Colorado is largely spent at home. After making his "pile" in the mines, the owner thereof comes to Denver, builds a fine house, puts up an office block or two and settles down to enjoy life.

The best hotel in Denver is the Brown Palace. The Denver Omnibus and Cab Co., with offices in the rotunda of the Brown Palace, furnish the best carriage service.

The pleasantest, most economical and quickest way of getting around is to take a "Seeing Denver" car, which starts at stated hours from the Brown Palace Hotel. A well-informed lecturer accompanies each of these cars, points out places of interest and tells his story. He shows you the first cabin in Denver and where gold was formerly mined in the heart of the city. The residences of the foremost citizens are pointed out; also the most noted of the six dozen public schools and one dozen colleges. He tells you that Denver has 160 miles of street-car lines, twenty clubs, seven theaters, eleven parks, twenty-five hospitals, 150 churches and four daily papers.

The quickest and shortest route to Colorado Springs from Southern points, offering the most beautiful scenery is via Southern Railway to St. Louis, Missouri Pacific, St. Louis to Pueblo, and Denver & Rio Grande from Pueblo to Colorado Springs and Denver. By taking the Southern Railway which makes the trip in considerable less time than other routes, a stop over of a few hours is offered the visitors in St. Louis to see the city.

The Missouri Pacific has a number of trains to Kansas City daily, thus giving the tourist a chance to break the trip and see that beautiful city.

The best hotel in Kansas City, everything considered, is the Brunswick. Cars to hotel direct from depot.

VALVULAR DISEASE OF THE HEART.

Every physician doing general practice has on his list a few cases of this trouble. They are a source of some income and a great deal of annoyance. Contrary to the general belief of the laity these sufferers may lead a long and fairly active life; we know of a gentleman now sixty-five years old, who has had such a lesion ever since the age of fifteen—fifty years. He went through the civil war and has since made a good living, has brought up a large family, and is still in fairly good health and at work.

As a matter of fact there are many such cases that are not aware that they have anything particular the matter with them, and it is only when they have some intercurrent disease which makes it necessary for a physician to listen to the heart that the state of that organ is discovered. Examiners for life insurance companies come across such cases frequently, and the applicant is genuinely surprised to find that he is not in perfect health.

These cases, however, are the exception, for the disease as a rule makes itself manifest from time to time, and necessitates the services of a physician.

The valve most commonly attacked is the one between the left auricle and ventricle, the mitral valve. Next in frequency is disease of the aortic valves. One of these affections sometimes leads to the other, but they may be both attacked at the same time. At any rate it is not uncommon to find both of these valves involved.

Disease of the valves of the right side of the heart is much rarer. When there is any acute obstruction to the flow of the blood through the lungs it is the rule to find the right ventricle so dilated that the auriculo-ventricular valve is too small to close the opening, and there is a regurgitation of blood accompanied by the characteristic murmur. This is a frequent complication of pneumonia, and may be serious, but usually leads to no very evil results, and the organ goes back to the normal when the lung clears up. This is what the textbooks call a relative insufficiency; that is, the valve is normal, but the ring in which it works is stretched so that the valve is relatively not large enough. The same condition may obtain in any valve, but the mitral and the tricuspid are the ones oftenest so affected.

In these cases we get a strong murmur during the contraction or systole of the heart; that is, with the first sound. There is no murmur before this, or very little. If the other valves are in good working order the second sound is normal in quality, but generally weak, because a smaller amount of blood than usual is forced into the arteries. If the heart has undergone a hypertrophy to compensate for this leakage the arteries may get the full amount of blood and their valves may close very nearly normally, usually a little more sharply than normal. In these cases, however, the great force of the systole makes the first sound and the murmur which accompanies it very loud and strong, so that the second sound seems weak in comparison.

The valve between the right ventricle and the pulmonary artery and that between the left ventricle and the aorta may be so broken as to be unable to hold the blood properly. In this case the murmur of the regurgitating blood is heard after the second sound and often lasts long after that sound has ceased. Under these conditions the ventricles, when properly nourished take on a hypertrophy to compensate for the leakage.

There is another cause of murmur at the valves of the heart, that is, when the valves become thickened to such an extent as to obstruct the flow of blood past them. When this occurs in the valves between the auricles and the ventricles the murmur is heard while the ventricles are filling up, or before the first sound; in technical lan-

guage, a presystolic murmur. When the same condition affects the aortic or pulmonary valves the murmur is heard with the first sound, not so much over the apex of the heart is in the case of mitral and tricuspid regurgitation, but over the bases of the aorta and pulmonary arteries, in the second right and left intercostal spaces respectively.

There are many causes which may lead to a crippling of the valves of the heart. When the organ beats with extreme violence, as during great exertion or under the stress of extreme emotion, the cords which limit the motion of the auriculo-ventricular valves have been known to give way, or the pocket valves of the aorta have been ruptured. The greater number of cases, however, have occurred as a sequence of some inflammation of the endocardium.

Endocarditis may follow almost any of the infectious diseases, or any condition in which toxins or pus or pus microbes are found in the blood. Certain kinds of rheumatism often lead to this affection; one of the first questions which an experienced physician asks when confronted with a case of valvular heart trouble is when the patient has had rheumatism. It often happens that a case of rheumatism may run an apparently mild course yet attack the heart and injure it severely.

The consequences of valvular heart disease are only too well known. At first there is a period of feebleness of the system on account of the lack of a full blood supply. Then the heart, if the general nutrition is good, becomes hypertrophied, and is enabled to propel enough blood through the arteries in spite of the leakage or obstruction. Under this extra strain the arteries become greatly thickened.

But a time comes at length when, for some reason or other, the nourishment of the heart fails. Then we have all the evil consequences of stagnation of the blood and an insufficient supply to the various organs and tissues. The principal manifestation of this is a sensation of shortness of breath and a state of general malnutrition, poor digestion, torpor of the liver and dropsy; these processes all having their peculiar symptoms.

As to treatment, we must endeavor to build up the strength of the heart, and in the meantime to keep the other organs going the best we can upon their insufficient food. Rest in bed in acute cases is usually necessary. As a general tonic to the heart and the blood vessels there is nothing quite so good as anasarcin. From three to six tablets a day may be used for an adult. As the case improves a little gentle exercise should be allowed, and passive movements and massage of the muscles

may be employed until the health is well re-established. This medication is all that is necessary, although some cases may improve a little faster if iron and strychnine are used in addition to the anasarcin.

DIPHTHERIA ANTITOXIN IN CHOREA.

Since a diphtheroid bacillus has been isolated from the blood of cases of paresis, and the diphtheria bacillus has been found in the cerebrospinal fluid in a case of meningitis, the recent successful treatment of chorea by diphtheria antitoxin, or rather antidiphtheritic serum, deserves some attention. The *Courier of Medicine* quotes a case reported by Hamilton (*Med. Record*, January 16, 1906):

"A young man twenty years of age, of robust health, a night telegraph operator, had never been sick, but had become an inveterate tobacco smoker, and for the past year had not been getting nearly enough sleep. The family history is unusually good, except that an older brother has an involuntary muscular movement of the lower extremities when he attempts to walk. This came on after a severe illness in infancy, the nature of which I could not ascertain. His mind is also somewhat affected.

"I was called to see this young man, first mentioned, December 15, 1905. He was suffering from an attack of subacute rheumatism affecting his hands and right side mostly. The temperature was very moderate, and all trouble seemed to subside in a week. I did not see him again until January 30, 1906. He had at this time but little rheumatism, but was extremely nervous, and this condition, as I was informed by the family, was growing rapidly worse. His mind was quite unsettled also. I ordered him to his bed at once and placed him under the care of a trained nurse, and began to give him full doses of the fluid extract of *cimicifuga* and Fowler's solution of arsenic. The rheumatic symptoms subsided, but the chorea became rapidly worse, so that by February 15th his hands had to be tied together, and his feet and limbs had to be confined; at times it took the combined efforts of two attendants to keep him in bed and prevent him from injuring himself. At this time it took as much as 90 grains each of chloral hydrate and bromid of potassium in divided doses during a night to procure a few hours' sleep; or, which acted rather better, 40 grains each of sulphonal and trional. The delirium, which at first was moderate, was now a violent mania. It was evident that the man could not survive long under these conditions. On February 17, at 8 o'clock, a. m., I gave him 3000 units of diphtheritic antitoxin; at 11 m., a decided reaction had come on, temperature,

102 degrees; by 5 o'clock p. m. this had subsided, and the choreic symptoms were so much relieved that all restraint could be removed; delirium the same. Half the former dose of the hypnotics above mentioned procured a good rest the following night. By 8 o'clock a. m., February 18, there still being some choreic movements, I gave 2000 units of antitoxin serum; in four hours there was some reaction; temperature, 100 degrees. By the evening of this day all irregular muscular movements had subsided, and at this writing (March 20) have not returned."

Abstracts and Selections—Continued

MENINGITIS FOLLOWING EXCISION OF THE EYEBALL.

C. Devereux Marshall (Ophthalmoscope): It is probable that the majority of ophthalmic surgeons hold to the view that the removal of a suppurating globe is a procedure more than likely to give rise to a meningitis, and hence practice simple incision of the globe in order to let out what will come away of its own accord, reserving enucleation until after the acute symptoms have subsided. This method is claimed to insure exemption from meningitis.

The opponents of this practice, among whom Marshall may be considered the foremost, hold that incision into suppurating material within the eyeball does not render it any the less septic. In cases thus treated pus may soak back and infiltrate the orbit, giving rise to septic venous thrombosis, septic meningitis and pyemia. It can not be denied that allowing a mass of pus to remain in such close relation to the meninges is hardly justifiable on general surgical grounds.

Early operation, i. e., as soon as suppuration is well established, gives the opportunity of removing the abscess sack intact. In order to obviate the chance of infecting the orbit in removing suppurating globes in a later stage Marshall advocates a preliminary evisceration and the application of strong carbolic acid to the interior of the globe. He maintains that patients that die from meningitis after excision do so because the eye was left long enough to produce the disease before it was removed, and cites cases where meningitis followed panophthalmitis in an unoperated eye.

"THE IMPORTANCE OF ROENTGENOGRAPHIE IN SURGERY."

Kummell (Zeitschr. f. Aertliche Fortbildung): In the course of this article Kummell takes up the value of the X-ray in the

surgery of the urinary organs, particularly in the detection of vesical and renal calculi.

Regarding the latter, he is of the opinion, that every renal calculus becomes visible upon a good plate, and that, vice versa, if a shadow is wanting, no concretion is present.

MEDICAL GLEANINGS.

In pneumonia, the highest pulse rates are found in childhood, and the younger the child the more frequent the pulse at the same temperature.

To give ergot in cases of abortion before the uterus is thoroughly emptied is nothing less than malpractice.

For dandruff try chloride of ammonium, one drachm; tincture of capsicum, four drachms; water up to six fluid ounces. Apply night and morning.

It is said that when lime has got into the eye a solution of sugar and water is the best antidote, being much more efficient than vinegar and water.

Vomiting which continues for some hours after the injury points strongly to intestinal perforation. Increasing tympanites and a constant rise in the pulse rate are indicative of beginning peritonitis.

Diseases Simulating Gastric Ulcer.—Musser mentions especially cirrhosis of the liver, uremia, crisis of locomotor ataxia and gastric neuroses of neurasthenia, hysteria and epilepsy, in ail of which we may note pain, vomiting, hemorrhage and even collapse.

In Gastralgia.—Shoemaker suggests hyoscin hydrobromin, in doses of 0.01 grain in very severe gastralgia, but not to be given as a routine measure. In less severe cases he advises the following:

R Spts. chloroformi, 3iv.
Spts. etheris composita, 3vi.
Tinct. capsici, 3i.
Aqua dest. q. s. ad., ʒiij.

Sig: Teaspoonful in water every half-hour until relieved.

For Cure for the Whisky Habit.—Burnett claims that a person can not take the following prescription and drink whisky at the same time, i. e., that it will cure the whisky habit if a patient will use it:

R Apomorphine, 0.12 or gr. ii.
Strychnine, 0.03 or gr. ss.
Liq. potassi arsenitis, 2.60 or dr. ss.
Tinct. conchoniadae comp., q. s. ad.,

60.00 or oz. 1i.

M. S. One teaspoonful every three hours.

Lassar says that in order to combat baldness successfully it is necessary to begin as promptly as possible after it is first no-

ticed that the hair is beginning to fall. Healthy hairs, he says, do not come out, and if hairs are found on the pillow, on the clothing, or in the hair brush, the indication is given for beginning the treatment. One of the most important, yet very generally neglected prophylactic measures consists in frequent ablution of the head, a measure that is still considered injurious by many people. On the contrary, frequent shampooing and rubbing of the head is the best preventive of baldness. Another feature on which the author lays much stress is the necessity for cleanliness in all utensils used in the barber shop or in private. Actual baldness can not be cured, but a great deal can be done to prevent its onset by properly treating the tendency to falling of the hair. A course of treatment is outlined, of which the following are the most important features: Daily shampooing with soap and hot water, followed by drying and the application of a 1-1000 solution of bichloride of mercury. This is allowed to evaporate, and the scalp is then rubbed with a 1-400 solution of thymol or naphthol in alcohol. Finally, an ointment is applied containing one part of salicylic acid, two of tincture of benzoin, and fifty of vaseline. In obstinate case the treatment is begun by the application of tar liniment, which is removed ten minutes later with the soap.

Medicines are not always the proper things, for, although of value and benefit, they can not be used in every instance successfully, unless good nursing and proper food are included, with proper sanitary measures added.

The Evans' Vacuum Cap is a mechanical means of obtaining a free and normal circulation of blood in the scalp. An advertisement appears on another page of this magazine and it is worth the time of any physician to thoroughly investigate the merits of the apparatus for the treatment of baldness.

Ammo-Phenin is a safe and reliable stimulant, nypnotic, analgesic, expectorant and antipyretic and is indicated in lagrippe, pneumonia, rheumatism, neuralgia, etc. The Ammo-Phenin Chemical Co., of St. Louis, Mo., will be glad to send samples on request.

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Spasmodic and Senile Asthma.**

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THE NEW ALBANY MEDICAL HERALD

in flooding the market with all possible substitutes for tinctures, fluid extracts and solutions, it has been amply demonstrated that these solid forms of medicine can not compare in efficiency or in usefulness with the equivalent preparations given in liquid form, says the Journal of the American Medical Association in their issue of June 23, 1906.

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wines extemporaneously prepared from cocaine and cheap grades of wine. It has not required much investigation to prove their falsity and perniciousness while every effort to malign this standard coca preparation has invariably resulted in strengthening the vast testimony, from every part of the world where medicine is practiced, which has voluntarily endorsed the integrity and usefulness of Vin Mariani.

At the three hundred and thirty-seventh regular meeting of the New York Dermatological Society, held November 28, 1905, the subject of X-ray burns was taken up, and Dr. Henry G. Piffard, Emeritus Professor of Dermatology in New York University, said, according to the Journal of Cutaneous Diseases, "That he had obtained the most benefit in treating these conditions from antiphlogistine, chloride of zinc, high frequency current and ultra violet rays."

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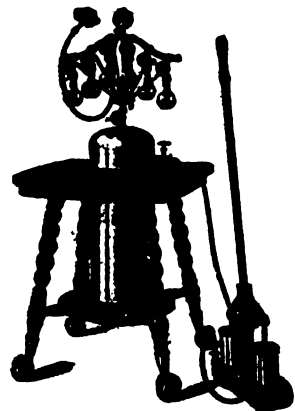
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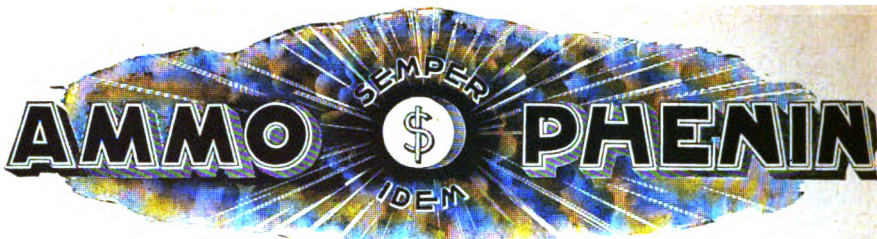
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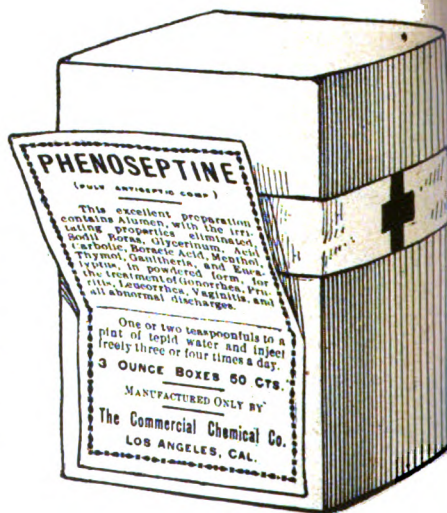
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ORIGINAL.

SHOULD THE PATIENT BE INFORMED OF THE NATURE AND CONSEQUENCE OF HIS DISEASE? *

By Dr. R. H. McGinnis, Jacksonville, Fla.

This is a big broad subject, admitting of many answers under as many different circumstances. It must be answered in each individual instance after careful consideration of the evidence that the case presents. It is a question that often confronts the physician and requires much discretion in the presentation of his answer.

All rules are subject to exceptions, but I believe, as a general proposition, that all patients afflicted with diseases of an infectious, contagious or communicable nature should be informed of their ailment. Especially is this the case in chronic infections, where there is danger of the disease being conveyed to others. And, in diseases not communicable, this information is equally necessary in order that the patient may be the better impressed to observe the laws of health relative to him.

The physician is relieved of much of the responsibility of this information in the acute infectious and contagious diseases because of the laws requiring the reporting of the cases to the health authorities. This law is right and proper and necessary for the protection of the patient as well as the public, and, possibly oftentimes prevents epidemics.

In informing a patient of his condition, the physician necessarily has to exercise his powers of discretion to the fullest extent. He must remember his duty as a public servant, private citizen, and the patient's physician. He must keep secret and inviolate the confidences vouched to him as physician and at the same time not transgress any of the laws of morals or the laws of the Commonwealth.

Some patients can be told "the truth, the whole truth and nothing but the truth," some a part of the truth, and some have to be

actually deceived. When the latter is necessary, the physician would be very derelict in his duty should he fail to inform some member of the family or close friend the exact conditions.

I will not consume your time to mention all the instances where the patient should know his condition, but let me call attention to a few of the diseases where the physician must stand between the infectious patient and the public and in this attitude make use of his knowledge in such manner as to alleviate the distress and suffering of the patient as far as possible and to protect the innocent public.

TUBERCULOSIS

I mention tuberculosis first, because it, is the greatest cause of sorrow, incapacity and suffering. Should the tuberculosis patient be informed of the nature of his disease? (I refer to the incipient stage of this disease; not its later manifestations.) In the majority of cases, I answer, Yes.—Why? Because with this knowledge and the advice of the physician relative to his treatment and conduct the patient will be in a position to better observe the proper regulation of his habits, mode of life and environments, and to use the necessary protection for himself, family, friends, and the public. This knowledge will make the patient more careful in following the advice of the physician and enable him to be on his guard in disseminating the germ-laden secretions and excretions. He may be a person of affluence; if so, he can select, with the physician's advice, a suitable sanitarium (and fortunately there are many) in which to undergo the necessary treatment and thereby possibly recover; return to his family, no longer an invalid and source of sorrow, to his friends bringing joy and gladness by his pleasant and congenial disposition, and to the community; a strong man ready to battle with the competition of commercial life in renewed strength and vigor. If poor, he can be instructed relative to the regulation of diet, the value of exercise, sunlight and fresh air, and the protection of himself and loved ones, and thereby become a source of revenue, a provider—not a care—and assistance; not a drain on his family and home; a citizen and a tax payer—not a pauper.

*Read before Florida Medical Association.

SYPHILIS.

In dealing with a syphilitic, the physician has to evade the question oftentimes, especially in cases of syphilis in married women. It is comparatively an easy matter to inform a man that he has syphilis, but the situation becomes indeed complex in the married woman. The physician has to consider in such cases the relation of conjugal felicity, the welfare of the children, if any; the preservation of the home, and the protection of the innocent. In syphilis of the unmarried, it is imperative on the part of the physician to inform the patient of his condition in order to receive a better co-operation in the method, manner, and mode of treatment, including the proper observance of measures to protect others. A syphilitic without the knowledge of the nature of his malady may have secondary manifestations on his face and go to a barber shop and get shaved and the next man runs a great chance of becoming infected from the razor used on the previous subject. A physician has a woman of easy virtue under treatment, is it not his duty to inform any man of the existence of the disease? I sometimes think physicians are too lax in cases of this kind. A harlot cares naught whom she infects; and while she, as a patient of the doctor, is entitled to the confidence of that doctor as any other patient, yet the physician owes something to the public in the way of protection.

GONORRHEA.

What has been said relative to syphilis applies equally to gonorrhea.

SCABIES.

This class of patients is a menace, not to the public so much as to their families and close associates. The patient with the "itch," should be informed of it as soon as diagnosis is made and I know of no patient more willing to follow the physician's advice and subject himself to proper treatment than one suffering from scabies. He becomes so miserable and provoked with himself that he has sympathy and compassion enough not to wish to convey it to others.

Similar remarks as the above apply to all other chronic, infectious or parasitic diseases.

DIABETES, BRIGHT'S DISEASE, AND VALVULAR DISEASE OF THE HEART.

There are very few circumstances where it is not advisable to tell a patient afflicted with either of these diseases the nature of the trouble. Of course, the physician must use discretion in the disclosure and not unnecessarily alarm his patient. The physician may cause a patient to seek another doctor by imparting this information in some cases,

yet it is his duty to the patient and may by the proper caution prevent the patient's sudden death. For instance: The caution to abstain from sudden and violent exertion in the case of valvular disease.

The mind of the laity is imbued with the idea that when one has diabetes, Bright's or valvular disease he is doomed and that there is no need for him to deprive himself of any of the luxuries, much less of the necessities of life. He, no doubt, received this information from the medical profession, and if so, the medical profession must and should see to it that his mind is disabused of the idea. Never tell a patient that he is going to die and that nothing will do him any good. We know that patients afflicted with these diseases have lived many years without the knowledge of its existence and a careful prognosis, based on the general condition, age, temperament, and environments, coupled with proper treatment, will add years to his life and usefulness.

I am satisfied that many a patient has been scared into an early grave by the physician informing the patient of the trouble and making a gloomy prognosis, especially in Bright's disease.

DIPHTHERIA.

Diphtheria is the only acute infection I will mention, as what is said of it will apply to scarlet fever, measles, smallpox, etc.

A case of diphtheria may walk into your office for treatment. Should you not inform the patient of its nature?

Tell him if for no other reason than to keep from spreading the infection. A case contracted from his mild case may prove fatal. It may cause inconvenience and discomfort to the mild case during quarantine, yet that patient would rather abide the regulations of quarantine than be the means of transmitting the disease to others. And the physician as a servant of the public has no right to withhold the information and subject others to infection.

DISCUSSION.

Dr. Pierpont:

That portion of Dr. McGinnis' paper which refers to the invariable prognosis with reference to the so-called or thought-to-be incurable diseases, is well taken. A great many people will come to a physician who will tell them that they will not live more than two or three years. I believe we make a mistake when we are pessimistic rather than optimistic with a patient, on the outcome of maladies, even though we feel the end will come at no distant time.

Dr. Hodges:

The questions brought out by this paper are timely, but there is a thought in my mind not yet expressed by any of the speak-

ers and that is, the tendency of some physicians to tell the patient too much. My observations have been not so much that the physician did not tell enough, but that he told too much. I have known people and patients whose lives were made miserable by physicians telling them they had certain diseases, and it seems to me it might be well to bring out this point that physicians should be careful in making a diagnosis and prognosis of something serious unless they quite sure they are correct and unless that prognosis is warranted. Physicians are very often thoughtless along these lines. Patients sometimes tell me that they can not take chloroform as Dr. So-and-so has said they could not stand it. That embarrasses the physician. I had a case of this character yesterday, a woman, whom a well-known physician had told two or three years ago that if she ever took chloroform again, it would kill her. It seemed that at the time chloroform was being administered to her she developed bad symptoms and he hurried through and told her that if he had not hurried she would have died. It might be necessary for her to take chloroform again as she had to do yesterday, but as the woman had some confidence in me and I expressed no doubt but that she could stand it, it was administered without any trouble and she went through it all right.

Dr. Jackson:

Very often a person has a disease and by telling him the nature of the trouble and dealing with him frankly, you gain his cooperation in doing the right thing for the disease. But if you tell him what to do without a prognosis, he will not want to do so, but if you tell him he has a certain trouble, he will co-operate and will report intelligently as to his progress, and as to his condition. To illustrate: Typhoid fever; a lady just arrived at Miami; husband said "Don't tell her for she will die." Told him I thought best to do so. Fever ran along for a week and she kept worrying and I finally told her she had typhoid fever. I had insisted that she keep quiet. Immediately she was resigned and the consequent results were a nice recovery, which she could not have done if she had not been informed. When a person has Bright's disease or diabetes, and is put on a certain diet, if you tell him what the trouble is, he will co-operate with you and the results will be better and be seen quicker than if he is kept in the dark.

Dr. Porter:

On thing I would urge is never to tell a patient they have yellow fever. Tell him any other thing, and lie if necessary to him, but never say "You have yellow fever." I remember several years ago a prominent cigar manufacturer in Key West contracted yellow fever, probably in Havana, was sick in Key West, seen one or two days by a phy-

sician there who did not recognize the disease, finally coming under the care of Dr. Murray. Dr. Murray reported the case and asked that the man should not be told he had yellow fever. The patient was in a room on the third floor of the hotel. I went to see him under the excuse of purchasing some cigars. Managed to get my hand on his pulse and got the necessary examination. A gentleman friend with him at the time was kept in the room with him and had to stay in the necessary ten days. The patient did not know he had yellow fever until he had got well. He said "If I had known that I had yellow fever at that time, I think I would have died." I have followed this rule ever since.

Dr. Kennedy:

In Pensacola, at one time, a physician was sent for to see two brothers. This physician was noted for his brusqueness and was very outspoken. The patients were grown men, in the same bed, with yellow fever, both equally sick. This physician turned to the family in the presence of the two men and made his prognosis and that they would be dead by night. One of them turned over and proceeded to die; the other was not of that build and he reached under his pillow, pulled out his check book and bet the doctor he would get well. Which so happened. It is not wise to tell a patient he has yellow fever.

SURGICAL TREATMENT OF RETRO DIS- PLACEMENT AND PROLAPSUS UTERI.

By C. M. Strong, M. D., Charlotte, N. C.*

To any one whose practice has to do with treatment of diseases peculiar to women, the frequency of these conditions must appeal to him. In this category you notice that I have not placed anti-displacements because of their rarity, and the absence of symptoms, together with the absence of treatment, aside aside from dilation and wearing of tube; which often gives good results in my experience, and too, in ante-displacement, the uterus can't well descend. A retro-displacement, unless held by adhesions, almost always prolapses and a prolapsed uterus, in most cases, is a retro-displaced one. Where the uterine axis is parallel to that of the vagina and supports are weakened, practically speaking, this is a retro-displacement. Two conditions being resent. i. e., displacement and prolapsus, two indications for treatment are obvious, restoring uterus to normal position as regards the antero posterior as well as the transverse plane of pelvis. In order then to better understand the treatment we must necessarily study:

* Read before the N. C. Medical Society.

- 1st. The support of the normal uterus.
- 2d. The causes which produce or increase the displacements.
- 3d. The symptoms which call for relief.
- 4th. The operative measures used to accomplish the relief.

1st. Normal support of Uterus.—Normal uterus is movable and hangs between rectum and bladder in an anteverted position, the os pointing to the post vaginal wall or lying in contact with it, and is supported, 1st, by ligaments; 2d, by tissue below the ligaments, consisting of muscle fascia, etc. There are eight ligaments, four on each side. 1st. Broad ligaments. Broad folds of peritoneum, closely adherent, which firmly invest the body of uterus to pelvic wall, they contain a certain amount of muscular fibre, continued from the uterine wall, posteriorly they are reflected upward to the rectum and anterior pelvic wall, anteriorly on bladder and anterior aspect of pelvic cavity. Possibly to these are ascribed the greatest influence in the retention of the uterus in its normal position, and to their relaxation and failure to restore same, many a failure might be attributed.

2d. Vesico uterine ligaments, of less importance, stretch from anterior body of uterus to the fundus of bladder and thence to the anterior abdominal wall. The connection between bladder and uterus being less close than rectum and uterus, less would be expected of these as a support. Round ligaments. Extending from each uteri cornue between layers of broad ligaments pass into the internal ring and lose themselves in the canal of Nuck. They contain striated muscular fibres, subject to the influence of the will; they act as guy ropes, preventing the uterus from tipping backwards.

Utero Recto—Sacral ligaments extend from posterior attachments of vagina to uterine cervix to be attached to sacrum, dividing to inclose the rectum. These folds also contain muscular fibres. Between these folds in the pocket known as cul de sac. The part they play is very important and are said by Jennings, of New York, to be the only ligaments that are taut while standing. Between all these layers of peritoneum called ligaments, is cellular tissue, nerves, blood vessels, etc., which have undoubtedly some influence in supporting the uteri. Other supports of the uterus are the tubular muscular canal, the vagina which helps to hold up the uterus, this tube resting upon the muscular body the perineum. Anteriorly the body of the uterus is supported by bladder which acts as a water cushion, post, the rectum acts in the same manner. Two layers of pelvic fascia aid in the good work: 1st: Representing transverse plane from middle of sacrum to lower border of symphysis pubis making roof for vagina and base from bladder.

2d. Representing plane, also transverse from tip of coccyx to the lower border of symphysis, representing a triangle base posteriorly apex anterior which serves to keep the uterus pushed forward in normal position. The perineum has a slight supportive effect due principally to the levator ani and sphincter ani muscles. The so-called perineal body has very little if any. The movable conditions of abdominal viscera produces a certain amount of tension upon all those ligaments, and upon the post wall of a normal uterus helping thus to keep it in right position. The uterus being a movable organ, the normal position varies, but the mean is, that the longitudinal line of vagina should meet the one of uterus at external os at an angle of 45 degrees. To assist these is, the intra abdominal pressure exerting a force upon posterior part of fundus equal to 25 or 50 pounds. We see so many things enter into the support of this organ that we are not surprised that the condition is a very difficult one to cure.

Symptoms Which Call for Relief.—A retro-displacement and certain amount of prolapsus may cause no inconvenience, hence does not call for treatment, but in consequence of interference of circulation, uterine catarrh, with excessive leucorrhoea, also the misplaced ovaries causing all kinds and conditions of pain. Adhesions of uterus and adnexa to peritoneum, narrowing lumen of gut, causing persistent constipation, and pressure on ureters, causing pressure nephritis, which I have more than once seen relieved by operation. All these call for relief.

Causes of Displacements.—Anything that weakens any of these varied supports, or increases the intra abdominal pressure, often due to compression of thorax and upper part of abdomen by corsets, tight dresses, etc., especially if there is a tendency for the fundus to tip backwards. Constipation, by pressing uterus downward and backward, also overfilled bladder. Childbirth, by far, most common, causes sub-involution, which enlarges uterus and weakens support. Laceration of perineum and component parts, e. levatorani muscles and two layers of fascia being very important supports. Destruction or weakening of the tubular vaginal support, inflammatory condition of adnexa. Occasionally a sudden jump or fall in virgin may produce it.

Treatment, General.—Therapeutical measures are indicated, but will not speak of them in this paper, nor will speak of mechanical support. In some cases (very few) we may get some results, but I am supposing that these have been tried and found wanting, which has in my experience been too often the case.

Surgical Treatment.—Almost every month some man comes forward with a new operation for cure of this condition, which is an

eloquent witness that there is no sure cure. This can readily be understood from the above study of the supports of the uterus, which are many and varied. Where the perineum has been torn and the other supports are intact, repairing it will suffice, but we know that the perineum alone has only a limited power in sustaining the uterus, for all of us have seen extensive tears of this organ with no displacements. Where the vaginal tube has been weakened, muscles torn, repair by "Noble Methods" of dissecting up mucous membrane and uniting the muscular fibres and fascia is satisfactory, especially where the levator and sphincter muscles are involved, and in our experience this has a considerable effect in supporting uterus. Where the ligaments are relaxed, Alexander's operation has been extolled, but as we have attempted to show, they have a very small effect in helping to hold up uterus and are rarely alone effective. We expect, and have found this very unsatisfactory when done alone. Another operation, devised by a Boston man, I can't recall, in which the round ligaments are brought through the broad ligaments by forceps, then stitched together back of uterus. We have tried in one case, with fairly good results, where there is not much prolapse I think it very good. Bissell's operation for shortening of utero-sacral, has never been tried, but I think it impracticable, because of the difficulty of reaching them, which would make it a very severe operation. The theory is good.

Where We have the Extreme Prolapse and Retro-Displacements with a Giving Away of All the Supports.—We have the ventro fixation in which the uterus is stitched into the abdominal wound, which will certainly hold it there, but what about subsequent pregnancy? We find it gives a woman great deal of pain because we change one pathological condition to another of a fixed uterus, especially during menstruation. The text-books say it is only applicable where the patient has passed the child-bearing period. I am convinced that when we do this operation we should render the patient barren, and we can do this by taking out a V-shaped piece from ampullæ of fallopian tube and sew up with fine silk, or can castrate. We owe this much to the subsequent well-being of patient. Then we have the ventro-suspension, which consists in attaching the peritoneal coat of uterus to the parietal peritoneum of abdomen, which forms a ligament, allows some motion of uterus. This has proved the most satisfactory in our hands, although I have had notable failures in this. The advantages of this operation are the ease and rapidity of operation and freedom of danger. This was an extreme condition in which all the supports gave way. The perineum, vagina and cer-

vix were repaired at one operation; at a subsequent one, ventro-suspension was done, and the condition is almost as bad in this extreme case as in the commencement. Nothing has been done to shorten or draw up the broad ligaments, which is one of the main supports of the uterus, and to this I attribute my failure, and for these cases would do the ventro-fixation method with castration and repair of other supports. There is, therefore, no ideal operation for these extreme cases. I have in my mind's eye, and shall try it in such cases, this operation: Repair at first operation all external tears, then shorten the round ligament by bringing back of uterus, then lapping over in form of a cross the broad ligament, being careful not to compress any important vessels, then ventro-suspend and render sterile the woman. The uterus should be curetted at first step in all these operations.

Labor will effectually try any of our methods, and a temporary cure is not very assuring to any operator. Possibly with a more skilled operator these conditions might be different, but in reading the discussions of this subject by our leading operators, we find the various methods lauded and then condemned, which leads us to infer that they all must have some failures, and that their cure is not so easy.

My position as instructor of operative gynecology and abdominal surgery in North Carolina Medical College has given me some opportunities of trying the different operations, and the number of cases presenting the different phases has been surprising, for every day almost a woman presents herself suffering with some form of this trouble. The results of operation have been, in main, satisfactory, but all have failed.

STERILITY.

By Edwin A. Long, B. S., M. D., Ex-Pres. E. Tenn. Med. Society, Johnson City, Tenn.

Many are the homes rendered desolate and uninteresting; great is the discontentment of husband and wife; destructive are the jealousies arising from infidelity, leading often to separation and divorce, because the marriage bed has not been fruitful. What physicians among you have not heard the frequent utterance of disappointment because the home has not been brightened by the prattle of little feet coming to meet and greet the husband as he returns from a busy day at the shop or the desk, or the wife as she returns from a round of calling or shopping? Do you know the love of a mother's heart and the fondness of a father's affection for their little ones? How bright and happy is the home where the love of the wife for her husband and the devotion of the husband for his wife have been intensified by

their common love for one who is blood of their blood and bone of their bone. Imagine a more inspiring feeling than that which fills the breast of the young father as he gazes upon the new born babe lying upon its mother's breast! Never before has his heart been awakened to such depths of purest love. The wife is now even more beautiful and far more dear to him than on their wedding day. All nature, all divinity smiles upon them as they caress each other with a love and fondness never known before! Has your soul been stirred by such inspiration? Have you been honored with the title of father? Has your wife known the love of a mother for her child? If nature has thus smiled upon you you can fully appreciate the intense earnestness of those who plead with you to render the barren womb fruitful, that desolate homes may be filled with sunshine and gladness. There is no branch of medicine and surgery that deserves more careful study and none, possibly, that receives so little as that of sterility. This is my only apology for writing upon this subject.

It is our duty as well as a good business principle to thoroughly investigate and treat every case that presents itself to us. In most cases sterility is due to pathological conditions connected with the reproductive organs. It may, however, be due to congenital malformations, but in either case it should elicit our most earnest solicitations and our best skill for the relief of the patient, as it may mean health and happiness to the family and money and reputation to the physicians. In beginning the investigation of a case of sterility we should remember that it is due to certain causes usually pathological in their nature and that may or may not be removable. Your success or failure in relieving this condition means much to the anxious patient in many instances. We must also remember that the cause of a fruitless union may exist in either the wife or husband, about ten per cent. being due to the husband. For our own protection we must be very guarded in our prognosis, as only a small per cent. of all cases treated are cured. Any woman who is unable to give birth to a living child is considered barren, including those who never conceive at all, those who conceive, but are not able to carry their children to term and give birth to them and those who become barren after they have given birth to one or more fully developed children. Each of these varieties requires its distinctive treatment. Sterility may be due to one or more of many different causes, some of which I will mention. Congenital or induced malformations such as total absence or imperfect development of the uterus, stenosis of os cervix or tubes, imperforate hymen, atresia of the vagina, carcinoma or sarcoma of the

uterus, metritis, endometritis, endocarditis, vaginitis, inflammation of the uterine appendages, malposition of the uterus or ovaries, filthy leucorrhœa, syphilis, gonorrhœa imperfectly developed or unfertile ova, gout, anemia, obesity, etc.

After careful examination has revealed the causes of sterility it becomes the physician's duty to, if possible, remove the cause and render the womb fruitful. But it is often impossible to ascertain the true cause, and quite as often impossible to remove it when found. In addition to the local treatment for the removal of the pathological condition it is often necessary to give constitutional treatment for the removal of any specific taint which may exist or to fortify the nervous system and in some cases to overcome the hyper-acidity of the secretions. In some cases where you least expect it there may exist gonorrheal disease of the ovaries or inherited or acquired syphilis and it is a safe plan to give a course of antispecific treatment in any cases where other treatment fails or where the cause can not be ascertained. Stenosis of the os cervix may be congenital or the result of inflammatory processes and in every case, regardless of the cause, it should be treated by dilatation. The best method to adopt for this purpose is the careful and frequent application of the uterine dilators. Care should be observed that the cervix may not be lacerated, which often occurs in forcible dilatations. The dilators should be applied occasionally for several months or even years as the os tends to contract or assume its former stenotic conditions. Should the uterine mucosa be inflamed or diseased in any way it should be carefully treated by the best approved methods. An unhealthy mucous membrane bathed in pus or other unhealthy secretions often prevents conception by destroying the fertility of the ova and spermatazoa. Rendering the endometrium healthy is often sufficient to render the womb fruitful. Should malposition or flexions of the uterus exist it should be corrected and the organ held in position by pessary, usually the soft rubber ring being preferable. Sometimes the cervix is in such a position that the spermatazoa can not enter the canal. This condition can usually be overcome by treatment and the use of the pessary. Sterility may be caused by subinvolution or hyperinvolution following child birth. This may account for many mothers becoming barren. Subinvolution is often accompanied by inflammation of the uterus and its appendages and requires great care and persistence in its treatment. I shall not undertake to describe all the causes of sterility nor give treatment to suit every case, but suffice it to say that every case must be thoroughly examined and skillfully treated, and even when this is done most of our

cases will go uncured. In most instances, however, the treatment will improve the patient's health even if she is not rendered fruitful. I have treated a number of cases of sterility, some with success and some with failure. I will briefly cite two of the cases I treated with gratifying results. Case 1. Mrs. A. aet about 29. Married eleven years without conception. She complained of pelvic pains and a sense of weight in bottom of abdomen. Leucorrhoea was profuse and filthy. On examination I found endometritis with erosion of the cervix. The uterus was hanging low in the pelvis and was heavy and tender. The ovaries were also swollen and sensitive. She suffered greatly with dismenorrhoea. I gave her vigorous treatment by local applications of tr. iodine and carbolic acid with vaginal irrigation with antiseptic and astringent solutions. This treatment, combined with constitutional remedies, soon produced great improvement and she conceived at once and has borne several healthy children since. Case 2. Mrs. S., aet about 25 years. Had been married three years without conceiving. Her general health seemed very good except at her catamenial periods when she suffered considerable pains and her flow was very scant. She was very anxious for children. She had retroversion and slight prolapsus of the uterus and a pin-hole os cervix. I dilated the cervical canal with uterine dilators, giving a series of treatments reaching over a period of some weeks. I adjusted a soft rubber ring pessary and she was relieved of all pelvic pain and uneasiness and was the proud mother of a fine child about nine months later.

THE TREATMENT OF ECZEMA.

By Dr. Elmore Palmer, 309 Plymouth Ave.,
Buffalo, N. Y. Ex-President of the
Western New York Medical
Society.

A celebrated physician of the old school is quoted as saying that diseases of the skin may be divided into two classes, one including all those which zinc oxide will cure and the other those which it will not cure. According to this classification, chronic eczema would come in the second category.

It is often a most intractable disease, and almost all the drugs in the pharmacopeia have been used, at one time or another, in the treatment of it.

But in these later years we have come to a better understanding of its nature, and it has been found that the mild stimulant and antiseptic action of the resins and oleoresins is what it needs.

Formerly the rule was never to wash an area affected with eczema, but we now know

that the removal of the crusts and other excretions is necessary, and the best means for effecting this is soap and water. To the raw and irritated surface which is thus exposed soap is an irritant, and it must be thoroughly rinsed off in warm water. The part must then be dried and covered with some oily substance to exclude the air. In this oily base the medicine to be used for the cure of the disease must be incorporated.

This course of treatment is easily and satisfactorily carried out by the use of the ointment of resinol, and its results will be seen by the cases from my own practice which I cite below:

Case 1. Mrs. J. B. F. Age, 38. Widow. She is the mother of four children. For several years this lady has been suffering from an eczema which involved the scalp, the axilla and the pubes. It seemed to follow the hairy parts. Her suffering was greater at some times than others, but was always intense. The sensation was that of burning and itching. The general health was good for the most part.

Treatment.—Internally I gave her a mild alterative mixture. The local treatment was begun by cutting the hair of the head quite short. I directed her to cleanse all the affected parts very thoroughly twice a day with resinol soap and warm water. The soap was then well rinsed off in clean water, the parts dried and then covered with resinol ointment, which was well rubbed in. At the end of the fourth day the improvement was noticeable, and in five weeks the disease was thoroughly cured. This was two and a half years ago, and there has been no return of the disease.

Case 2. Miss Nellie A. Age, 23. Unmarried. Teacher. When she first applied for treatment she had a facial eczema of three years' standing. The whole of the left side of the face, the ear, and the left side of the neck down to the clavicle were involved. There was an intense redness of the parts with itching and some swelling. These symptoms were always present, but were worse at night. The bowels were inclined to be constipated, and her urine was scanty. The menses were irregular and painful.

Treatment.—This was first directed to the organs of elimination; their activity was aroused by the usual remedies, and was kept up until the system was thoroughly cleansed. Locally, I had her apply resinol ointment to the affected parts every night and morning, rubbing it in well. From the start great relief was obtained, and gradually all symptoms disappeared. In five weeks she was well, and when I saw her again after the lapse of a year there has been not the slightest return of the eczema.

Case 3. Mr. N. T. K. Age, 66. Married. By occupation, a farmer. The case was one of eczema of the scrotum, which he had had

for eleven years. He had been treated with many different remedies, but had obtained only temporary relief from any of them. The itching and burning were very intense and continuously present, being worse at night. The skin of the part was very dry, stiff, and of a dark brown color.

Treatment.—Prescribed a saline laxative to be taken every morning. He was directed to wash the part thoroughly every night and morning with resinol soapsuds, as hot as could be borne. The part was then wiped dry, and the ointment of resinol applied and rubbed in vigorously. This treatment was continued for seven weeks, when a perfect cure was the result. Twenty months have since elapsed, and there has been no return.

BEDSIDE DIAGNOSIS OF TYPHOID FEVER, WITH SPECIAL REFERENCE TO THE EARLY RECOGNITION OF THE DISEASE.

By Chas. Z. Candler, M. D., Dillsboro, N. C.*

Typical typhoid fever manifests itself by such evident and characteristic symptoms that to speak of its differential diagnosis would seem almost superfluous. However, mistakes are often made, but these are, as a rule, during the early days of the disease, before the cardinal symptoms, as it were, make their appearance. It is the early recognition and the diagnosis of atypical cases that baffle not only the young and inexperienced, but the old and experienced physician as well.

Delayed treatment affects in itself the life of one person, while the delayed recognition of the disease may affect many lives. This fact is manifested more particularly in private than in hospital practice. We know also that the earlier in a case we begin our treatment the better the patient's chances for recovery. Therefore, the early recognition of the disease is of the utmost importance from the point of view of treatment. However, there is another important reason for endeavoring to ascertain as early as possible whether a patient is suffering from an attack of typhoid fever; and that is, as long as the malady is not identified there will be no steps taken toward the spread of the disease to others. Think of the trouble that may arise from the so-called ambulant case, before his condition be diagnosed, if, indeed, it ever be diagnosed.

What, then, are the clinical symptoms of a case of typhoid fever in its earliest stage? It appears to me that the most important symptom is that of temperature. Now, the height to which the

temperature rises is in itself not diagnostic, it may be 99 degrees or it may be 104 or 105 degrees. A person may go for several days without any apparent discomfort, except perhaps loss of appetite, more or less headache, indisposition to any kind of mental work, with, in some cases, a slight diarrhea, and yet have a more or less elevated temperature. I have in mind now the case of a young man (a barber) who consulted me for general malaise which had existed for several days, together with headache, bad dreams at night and loss of appetite. In spite of this condition he had kept up his work in the "shop." His temperature was found to be 103.6 degrees Fahr. He was promptly put to bed and went through a typical attack of typhoid fever. I have no doubt that had his temperature been taken a week prior to my first seeing him it would have been found above the normal. We are frequently consulted about just such cases. A man comes in with a pale face, a tired, drawn expression, lack-luster eye, the pulse slightly accelerated, the tongue coated with a dirty white or yellowish fur, more pronounced in the center than at the sides. The red edges spoken of in the text-books will not be seen at this stage. The skin may seem dry and hot, but this symptom depends upon the condition of the observer's hand.

Given a case with a sustained temperature and that peculiar facial expression—and I would specially impress that facial expression—together with other more or less obscure symptoms, would point strongly to typhoid.

We are compelled then to diagnose, clinically, by a system of exclusion. To some extent geographical limitations of the disease aid us in the diagnosis. There are, however, sections in which almost all diseases are mistaken for typhoid fever, and vice versa. Before going into a discussion of the specific diseases, let us take up the temperature and a few other special symptoms that seem to characterize typhoid.

The typical temperature of the text-books is characterized by a series of regular step-like elevations, a remission of a degree or so in the morning, and an ascent of from one to two degree in the evening, to reach the maximum about the fourth day. I am of the opinion that a large number of cases do not resent this typical temperature chart, and that sometimes a temperature typical of typhoid fever may occur in other fevers. It has not been long since physicians of eminence did not hesitate to be very emphatic in regard to the value of temperature as a diagnostic sign in typhoid fever. Sir William Alken, in his "Practice of Medicine," said: "A temperature of 104 degrees Fahr. on the second day is not typhoid fever, a temperature which is not above 102.5 degrees after the evening of the fourth day is

* Read before the N. C. Med. Society.

not typhoid fever, and lastly, a patient after the first day whose temperature has been found normal once during the first week is not a case of typhoid fever." This was written twenty years ago. I do not believe that one of these definite statements has ever been justified. Temperature, then, of itself, is not a guide to the diagnosis of typhoid fever, although a typical chart is strong presumptive evidence of the disease. In fact, any condition with a continuous fever, ascending or irregular, for four or five days, is suspicious if no other symptoms of other diseases are to be made out.

Diarrhea.—This symptom was at one time looked upon as a cardinal symptom of typhoid fever. Now, it is by no means so common. On the other hand, it is rather the exception than the rule. The disease probably affects the intestines in one of two ways. It either causes undue irritability or it paralyzes. In one condition we have diarrhea, while in the other we have constipation.

Iliac tenderness and gurgling.—The iliac sign is a very unreliable one, as it may manifest itself in various other diseases. There is tenderness in some cases, though this will generally be found to be of a very indefinite nature. In some cases it is entirely absent, while in others it may be well marked. Gurgling in the right iliac fossa is present when there is much diarrhea. However, this sign can be elicited in nearly as large proportion of cases that are not typhoid. In fact, it can frequently be found in a state of health.

Spleen.—The spleen presents no abnormal symptoms in the early stages of the disease, though later on, during the second week, it becomes markedly enlarged.

Epistaxis.—Nose bleeding frequently occurs, though in my experience it has been absent in about as many cases as it was present.

Eruption.—The eruption of typhoid fever makes its appearance generally during the second week, on the abdomen, as a rule, though it has occurred on other parts of the body. It consists of rose colored spots which vary in size and shape, and are characterized by disappearing on pressure to reappear when the pressure is removed. The existence of this eruption is diagnostic of typhoid, though its absence is not proof that the disease does not exist.

Tuberculosis.—As a systematic invasion, apart from pneumonia, may be mistaken for typhoid. Especially it is true among the negro population. In both affections there is a prodromal stage with anorexia, progressively increasing fever, cough and bronchitis, headache and delirium. The temperature curve in tuberculosis is very irregular, eruption is absent, epistaxis is not common, and enlargement of the spleen is less constant than in typhoid fever. It is claimed that the knee jerk is never absent in typhoid,

while in tuberculosis it is variable—being present one day and absent the next. The Diazo reaction of the urine, once supposed to be diagnostic of typhoid fever, may also be present in tuberculosis. Clinically, the disease is difficult to distinguish from typhoid with irregular temperature. The face will, as a rule, be flushed, in contrast to the pale, drawn expression of typhoid. The tongue is more likely to be coated with a whitish fur, while in typhoid the tongue will be found covered with a brownish fur about the center, the red edges appearing as the disease progresses. By waiting a few days the diagnosis can be made, clinically, by the appearance of more marked typhoid symptoms.

Primary lobar pneumonia is occasionally, though not commonly, mistaken for typhoid fever, as the sudden onset with a distinct chill, marked pulmonary symptoms, presence of herpes illibis, and the occurrence of the crisis from the fifth to the twelfth day serve to distinguish the disease from typhoid.

Capillary or broncho-pneumonia is liable to be mistaken for typhoid, inasmuch as a capillary bronchitis is common in typhoid. But when due to the latter disease it is, as a rule, not met with before the latter part of the second week.

Influenza.—In my own experience I have known influenza to be diagnosed typhoid in two instances. In some cases it may exhibit great prostration with early bronchitis and epistaxis, combined with sleeplessness, fever and perhaps delirium. Generally the sudden onset, frontal headache, pain in eyeballs, rheumatoid, pains and sthenic fever, and the sudden disappearance of these urgent symptoms, together with absence of rose spots and enlarged spleen, serve to distinguish the disease. But typhoid fever may begin with pain in the eye-balls, more or less catarrh of the conjunctival mucous membrane together with other more or less atypical symptoms. Under these circumstances the best course to pursue is to wait.

Simple Continued Fever.—Pepper, in his "Theory and Practice of Medicine," says: "Simple continued fever may greatly resemble mild cases of typhoid fever. It is common to meet with patients who exhibit for a week or more, a fever of continued type for which no satisfactory cause can be discovered, and the exact nature of which must remain in doubt even after convalescence." The more abrupt onset, the absence of the characteristic temperature curve, the comparative infrequency of nervous or abdominal symptoms, of epistaxis, or splenic enlargement, tend to exclude typhoid fever in the diagnosis.

Meningitis.—Typhoid fever beginning with marked nervous symptoms (cerebro-spinal type) may readily be mistaken for meningitis. I have in mind the case of a

girl, sixteen years of age, who was taken sick with a severe pain in the head, delirium, stiffness of the muscles of the neck, retraction of the head, muscular twitching and high fever. In the course of a few days typical rose spots occurred on the surface of the abdomen, the spleen became markedly enlarged, there was considerable tympanitic distension and some nose bleed. On the appearance of these symptoms, the headache, delirium and other nervous symptoms passed away, and so did my patient. I did not have an opportunity of seeing her during the early days of her illness, therefore, I am unable to say whether there were any typhoid symptoms, especially a gradually increasing fever, in the beginning. However, I was informed by the family that she had not been well for several days, having complained with a pain in her head, loss of appetite and lack of energy. In cerebro-spinal fever the onset is more abrupt, the pain in the head more intense, vomiting more common, while the abdomen is more apt to be retracted, epistaxis less common, enlargement of the spleen less constant and herpes labialis more common than in typhoid fever.

Gastro-Intestinal Catarrh.—Again quoting Pepper: "Gastro-intestinal catarrh at times produces a group of symptoms highly suggestive of typhoid fever." However, there are some points by which we are enabled to distinguish the diseases. In acute gastritis we would find marked tenderness in the epigastric region and vomiting, a bright red tongue, sudden rise of temperature with a rapid pulse and diarrhea with fetid stools. In gastritis there is usually more colicky pain than in typhoid fever. In some of these cases it is sometimes necessary to wait a week or more before a positive diagnosis can be made.

Dysentery.—It is not probable that dysentery would be mistaken for typhoid fever, inasmuch as the temperature would be found subnormal the greater part of the day. The frequent and painful stools, and the location of the subjective pain—being low down in dysentery, while it would be more likely to exist in the umbilical region in typhoid, the absence of rose spots and enlargement of the spleen, would enable us to come to a correct conclusion as to the nature of the trouble.

Malaria.—There are several points of difference between these two diseases, some of which may be briefly mentioned: Malarial fever is usually ushered in by a distinct chill, followed soon by high fever, typhoid by chilliness, followed by a gradual rise of fever. The rapid pulse early in malaria is in marked contrast with the slow and often dicrotic pulse of typhoid. In malaria nausea and vomiting are common, with the absence of other abdominal symptoms. The presence

of the Widal blood reaction would point to typhoid, while the detection of the plasmodium malarie in the blood by means of the microscope would be positive proof of the existence of malaria.

Septicemia.—I have had no personal experience with this disease, but I should think the history of the case, the local trouble, intermittent fever accompanied by sweats, the absence of rose spots and Widal reaction would establish the diagnosis.

Therefore, the combined symptoms which are present during the first week, and which may be relied on for a presumptive diagnosis are: A daily increasing fever with headache and malaise with or without nose bleed, a brownish furred tongue and pulse of 80 or 90 with some degree of bronchial catarrh. If to these be added, during the second week, the Diazo urinary reaction, enlarged spleen, rose spots and the Widal reaction, the diagnosis would be absolute.

The general conclusions, then, with regard to the differential diagnosis of typhoid fever, clinically, are as follows:

1st. That the diagnosis of typhoid fever in the earliest stages of the disease presents probably greater difficulties than that of any other acute infectious disease.

2d. That there is scarcely any disease accompanied by fever that has not been mistaken for typhoid fever.

3d. That the disorders most likely to be mistaken for the disease in this country are tuberculosis, pneumonia, influenza, malaria, simple continued fever, and catarrhal conditions of the gastro-intestinal tract.

I have omitted laboratory methods of diagnosis for the reason that a description of them would be too extensive for a paper like this. However, I would advise continual study along that line, for by the employment of such methods as are now at our command we are enabled to recognize diseased conditions, the existence of which, we have been heretofore, almost, if not entirely, in the dark. When possible, every country practitioner should possess at least a microscope, for, by its employment, he may confirm a great many of his diagnoses.

In our mountain section of this State the people are becoming familiar with sanitary laws, and as a result, the frequency of occurrence of typhoid fever is becoming less and less each year. The source of infection of every native case can usually be traced to an infected water supply. It is well known that the most of our population depend upon springs for the supply of their drinking water, and that the drinking water of our section is unsurpassed. Occasionally a family will become lax in sanitary matters, build a pig sty so that it will drain towards the spring, or do some other equally unsanitary act, with typhoid as a result. In a paper entitled "An Unappreciated Source of

Typhoid Infection," read at a meeting of the Medical Society of Virginia, at Roanoke, by Dr. P. B. Barringer, he calls special attention to the infection of railroad beds as a factor in the spread of typhoid. He claims that the road-bed becomes infected through the discharge of typhoid patients traveling over the road while in the infective stage. The proof he offers in support of this theory, as a means of infection, is very plausible. I regard his paper as a valuable contribution and think it should call for more extensive study along this line. Dr. Barringer is a son of North Carolina, now the distinguished Professor of Medicine in the University of Virginia.

ABSTRACTS AND SELECTIONS.

ANOTHER PHASE OF THE PROPRIETARY QUESTION.

There is at least one phase of the proprietary question which, we believe has not been seriously considered and that is, that while every effort is being made by some of our really earnest and conscientious, though misguided workers to destroy the faith of the profession in practically all remedies of this class, and to bring them into ridicule, practically nothing has been done to provide satisfactory substitutes for them, except to make the suggestion—an excellent one, too—that physicians should familiarize themselves with the official and semi-official preparations contained in the Pharmacopeia and National Formulary. .

In making this suggestion they forget to add that a very large share of these "official" preparations are old proprietaries under other names. In other words, the great "reform" consists in the denunciation of such remedies as antiphlogistine, arsenauro, bromidia, lactopeptine, Fellows' hyphosphophites, antikamnia and Hayden's viburnum compound, while the use of practically the same things under other names is suggested or advised. In some instances the very formulas are used that proprietors have published or that analytical chemistry has elucidated.

There is no reason for the popularity of the proprietaries. Whether many of these remedies were "wonderful discoveries" or not, they have enabled the average physician to secure results more satisfactory to himself and his patients than he was able to secure without them. Very, very few medical men are able to extemporize prescriptions which at the same time are effective, palatable and not uselessly polypharmaceutical. All doctors ought to be able to do this, but they are not—and whose fault is it? And even if they were, who but the sheerest crank would claim that

he could properly write for, or the average druggist dispense, substitutes as elegant, as cheap and withal so satisfactory as many of the best type of proprietaries? It is best to look all these facts squarely in the face and be sensible in our conclusions, says Clinical Medicine.

We for once and forever have washed our hands of this question. Eighty per cent. of the medical profession in Louisville use them, including high officials in the American Medical Association, the State Medical Association, as well as other national medical societies. Louisville is perhaps more closely represented by officers in medical societies than any other city in the United States. These men all represent the highest exponent of medical ethics. Let the matter drop, brethren. The proprietary has come to stay. They give results, and all the "gods in Christendom" can not change the condition.

THE "FULL CORRECTION" TREATMENT OF MYOPIA.

E. Clarke (The Ophthalmoscope, London) presents a record of his experience, extending over twenty years, of the full correction of myopia and compound, myopic astigmatism. According to his method of treatment, the amount of the ametropia is estimated while the eye in question is in a condition of entire cycloplegia; he uses, for the production of this, atropin in the case of persons less than twenty years old, homatropin for others. Having estimated the degree of myopia, he prescribes its total correction and advises that such correcting glass be worn constantly. All the astigmatism is corrected, but, in cases in which the myopia amounts to seven or eight dioptres, he does not prescribe cylinders of less than one dioptre in strength, unless they improve vision. In many cases of high grade myopia, patients at first decline to have its full amount corrected, but, with that exception, he would never reduce the strength of the spheric lens, even for near work. To illustrate the results of his method of treatment, he has taken cases from his private case-record note books for a period of ten years. He has excluded all cases in which the patients were more than forty years old; those who had disease or the result of disease, such as cataract or corneal nebulæ (except where the disease was directly attributable to the myopia); cases of monocular myopia; or simple, myopic astigmatism, or myopia of less than 0.75 D.

The remaining cases numbered 1,129; a further reduction was made by the exclusion of those patients who had been under observation less than two years; which left 532 patients to be considered. The average duration of his observation of these cases was four and a quarter years; some had been seen

but two years, while others had been watched ten years. Of these 532 cases, the myopia, which ranged from 0.75 D to 20.0 D, remained, or became, stationary in 469, and of these the acuteness of vision improved in 162 cases.

In the remaining 63 cases the myopia progressed, but in 47 of them the increase observed during an average period of four and a half years was but one dioptre, or less; in 13, observed for the same length of time, the increase was between one and two dioptres, and it was only in the remaining 3 cases that the increase reached its maximum of four dioptres.

Excluding those whose maximum increase, during four years, was one dioptre, it is found that only 16 patients, of 532, had any increase worthy of mention; and, if it be considered that a maximum increase of two dioptres, over four years, is not serious, there are left but three cases, or .56 per cent., that had any serious increase; even in these, the maximum was but 4 D.

There seems no doubt that, by this full correction, convergence strain is lessened and the ciliary muscle made to perform its proper work. The author expresses a firm conviction that it is not only excessive convergence, but excess of convergence over accommodation, which causes progressive myopia.

Of the cases reported in this article, those which showed active fundus changes were taken out of school, all near work was forbidden, they were sent to the country when that was possible, but in all cases the fully correcting glasses were ordered to be worn constantly. In not one of the cases did the question of dissection arise. Dr. Clarke feels sure that if this method of treatment were generally adopted, especially in the young, progressive myopia would become rarer and rarer and a myopia of 20 dioptres would, after some years, be almost unknown.

WHEN NOT TO OPERATE FOR APPENDICITIS.

J. E. Moore (Journal of the American Medical Association) combats the dictum that all cases of appendicitis are operative cases, and holds that while certain classes of cases, such as chronic appendicitis without acute attacks, those with localized abscess and acute cases seen in the beginning of the attack, call for operation provided hospital facilities and a good surgeon are available, there are some other cases in which surgical interference is not advisable. The conditions in which the radical operation is not the best treatment are summarized by him as follows: "First, when the patient is evidently moribund; second, when the patient is evidently convalescing; third, when certain grave complications are present

fourth, in 'the midway cases beginning with the third day when the physician and surgeon are in doubt; fifth, in the extreme cases of suppurating peritonitis." Even in serious complications, or when general anesthesia is contraindicated by the condition of the patient if localized abscess exists, he states that it should be evacuated under local anesthesia. Ochsner's starvation treatment, Moore says, has been badly misunderstood. Ochsner did not recommend starvation and lavage for appendicitis, but for spreading peritonitis due to, neglected appendicitis. In such cases Moore, by opening abscesses locally, and by using to a greater or less extent Ochsner's method, has been able to tide them over to a successful interval operation.

ANESTHETIZATION OF DIABETICS.

Kausch, at the last meeting of the Deutschen Gesellschaft fuer Chirurgie, laid down the following rules with regard to the administration of anesthetics to patients suffering from diabetes: (1) General anesthetics should be avoided if possible, and some method of local anesthesia be selected, if such is not contra-indicated; (2) the use of a general anesthetic for strictly diagnostic purposes to be rejected; (3) the repeated administration at short intervals of a general anesthetic should be avoided; (4) ether is regarded as the special anesthetic for diabetic subjects; chloroform is decidedly more dangerous than ether, and is much more liable than the latter agent to set up intense acetoneuria; (5) the quantity of the anesthetic and the duration of its administration should be restricted as much as possible; (6) the administration of a general anesthetic to a diabetic patient should always be practiced early in the morning, so that the longest period of physiological abstinence may not be unduly extended; (7) every diabetic subject should, before the operation, be put under a sodium treatment; (8) if coma be threatened, or is already developed, the sodium treatment should be energetically applied by mouth and rectum, and by subcutaneous and intravenous injections.

TONIC EFFECT OF CHLOROFORM ON THE LIVER.

Nothnagel, having pointed out that fatty degeneration of the liver occurs after the administration of chloroform, Doyen (Lyon Medical), gave a dog the drug by the stomach in doses of 25 to 50 cubic centimeters daily, and examined the liver after its death, which occurred on the fourth day. He found that this organ contained about three times the normal amount of fat and that there was considerable cellular necrosis throughout the organ.

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EDITORIAL.

THE LATER STAGES OF SYPHILIS.

Syphilis is curable. This is the opinion of the best authorities on the subject, although there are some physicians who still have doubts about it. But under continuous careful and intelligent treatment, it is very rare indeed that the disease is not thoroughly eradicated. Many physicians, indeed, go so far as to say that an ordinary case of syphilis is much to be preferred to a bad case of gonorrhea. There is good reason for such a statement, for the gonorrhea may persist in a more or less active form for years, causing strictures in the urethra, inflammation and necrosis in the prostate, diseases of the testicles and seminal vesicles, cystitis, nephritis and general infection of the blood, with arthritis, meningitis or other complications. In the female, when gonorrhea gets into the womb and ovaries, there is little hope of cure except by removal of these organs.

In a case of syphilis, on the other hand, the patient may have very few symptoms. If he was in good physical condition when the disease was contracted, his chancre will bother him hardly at all and a slight rash on the skin and a little sore throat may be the only symptoms that he will complain of. There may be a slight fever once in a while, and he may become more or less anaemic, both from the disease and from the amount of mercury he is obliged to take. After this mouth heals and the transient skin lesion disappears, he is not liable to infect any one, and he may continue his usual occupations with very little inconvenience.

Of course this is on the assumption that he has the best of treatment, and that he is intelligent and patient enough to carry it out faithfully. The great trouble is that he gets along so well, has so few symptoms, that, after a while, he becomes careless and begins to neglect to take the medicine. He commences to doubt that he ever had the disease. The little sore on the penis was painless and lasted for only a short while; the sore throat was a slight affair and he can hardly believe that this was the terrible disease of which he had heard such awful stories.

In the case of young men, it frequently happens that they change their place of residence from one town to another. Then when he is away from the influence of the physician who attended him, it is not so hard to persuade himself that it was all a mistake in diagnosis, and he gradually drops all treatment. For a few weeks he watches himself carefully and, perceiving no skin eruptions nor anything else abnormal, he puts the whole thing from his mind.

It is in this way that the great majority of the cases of late syphilis are allowed to occur. When the disease finally makes itself manifest again after a lapse of several years, the physician who then sees it for the first time may have difficulty in diagnosing the trouble. The fact that a long time previously the patient had had a sore on his penis does not amount to much, for what with ordinary ulcers from infected abrasions, with chancroids, herpes and other things, a young man may have a number of sores and never have syphilis. In a similar way, a sore throat is not diagnostic, nor is a slight and evanescent skin eruption. In most cases which have been well treated during the earlier stages there is no falling out of the hair, and the history of the case as related by the patient is very indefinite.

In getting at the diagnosis of such a case one of the first things to search for is a general glandular enlargement. This is not absolutely characteristic of syphilis, for it is often found in people who have a slight scrofulous taint, and in a few other conditions; but, taken in connection with other symp-

toms, it is very suggestive. The cervical glands are especially to be noted in this respect, as they are much less liable than most other glands to be enlarged as a result of local infection.

Among the late skin affections of syphilis, the rupia is the most characteristic. It is a round ulcer, very indolent in its course, and is covered with a thick scale of scab material.

The gumma is the principal manifestation of this stage of the disease. It may be found on any part of the body, but shows a predilection for certain localities, such as the nasal septum, the neck and shoulders, and the upper third of the tibia. The internal organs are often affected, and the growth and subsequent cicatrization of the gummata in the liver, spleen, brain, spinal cord and other parts may cause deformities which interfere with or stop the function of the organs.

When a gumma is examined under the microscope, it is found to be a product of inflammatory action. There is an infiltration of round cells and fibroblasts, and this is not well circumscribed, as the feeling of the part would indicate, but extends into the surrounding tissues. In the middle of the mass a coagulation necrosis takes place which results in its breaking down into a gummy, mucilaginous substance.

When the gumma forms near the skin or some mucous membrane, an opening to the surface is formed after a time and drainage is established. In process of time healing by cicatrization takes place, the resulting scar being heavy and usually greatly puckered. When it is in the internal organs, the fluid material may be gradually absorbed into the blood, but the scar is produced in the same way and shows the same characteristics.

In syphilitic subjects there is a strong tendency toward the deposit of fibrous tissue in all parts of the body, especially in the coats of the blood-vessels, causing arteriosclerosis. This is a serious state and should be combated vigorously. The best means at our disposal to lessen the amount and hardness of this fibrous tissue is the iodide of potassium. This applies to the formation of scar tissue as well as to the diffuse distribution. The best form in which to give the iodide is the preparation called Iodine. In this very excellent mixture the objectionable taste of the potassium salt is well disguised and its alterative properties are reinforced by other alterative ingredients of the medicine.

For the disease itself we must give some form of mercury as in the earlier stages.

EFFECTS OF IMAGINATION ON HEALTH.

What is the nature of that mysterious bond of connection between mind and body we may never know, but the notice of the effects is sometimes interesting, startling, awful, as will be subsequently shown by well-attested facts, because of its bearing on the health and happiness of men, is the importance practically of keeping the mind constantly employed in something useful and agreeable. One of the great secrets of human happiness is to be profitably busy. Of all men they are the most miserable who have nothing to do; and yet, as far as the writer's observation extends, those who have nothing to do, never have time to do anything. The mechanic who is fully employed is the very man to perform a job for you punctually. When nothing presses on the attention, the mind is prone to dwell on small things; and strangely, too, these small things are, nine times out of ten, among the disagreeables. The absence of a neighborly nod from an acquaintance or a fellow citizen, who never failed to nod before, instantly sets a "nothing-to-do" to work; his whole soul is full of business, so much so that he can think of nothing else; the mind is tumultuously tossing, and all creation is veiled in a hurdling gloom. There is no stopping to inquire whether the offending one is near-sighted; whether he is not going for the doctor, or, worse than that, "shinning it" among his business friends to meet a note in bank, says *The Medico Chirurgical Journal*. Mr. Nothing-to-do gets hold of a fact, or story, or occurrence, and by its help he imagines a great wrong has been done him; he pores over it, he cherishes it most pertinaciously, he even wakes up in the night and thinks about it, until the mind itself is fully roused, and he can not go to sleep again. The more he thinks, the more sleepless he becomes and tosses and tumbles about on the bed by the hour; and, as the mind becomes hotter, the body begins to sweat, and he gets up in the morning as haggard and weary as an exhausted madman.

It is a well-known fact among medical men that a young student of physic will have a dozen different diseases in the first years of his novitiate. It seems that the study of certain diseases sometimes favors their real or imaginary development. Men and women often come for the treatment of consumption when, on examination, the lungs are found to be as sound and full acting as the lungs of a race horse; a slight thinness in flesh, or pain in the breast, or troublesome cough, from a disordered stomach or liver having been magnified to mean that they were falling into a fatal disease. Alas, how often are these imaginings taken advantage of by men who assume to be physicians,

and subsequent restoration is blazoned abroad, and certified to, in the newspapers as "cure of consumption," when the consumption never existed but in the imagination of a "nothing-to-do." Some patients are too rich to get well. If they had to take in washing at fifty cents a dozen, or had a house full of children "to do for," and no servants to help, with a sick husband to boot, they would soon be well enough. Let the reader remember then "a symptom" is the very last thing you should dwell upon. An anecdote is told of a French philosopher in illustration of the power of imagination:

A French philosopher served in Napoleon's army, and was present at many engagements during the early part of the last century. At the battle of Wagram, in 1809, he was engaged in a fray, the ranks around him had been terribly thinned by shot, and at sunset he was nearly isolated. While reloading his musket, he was shot down by a cannon ball. His impression was that the ball had passed through his legs below his knees, separating them from the thighs; for he suddenly sank down, shortened, as he believed, to the extent of about a foot measurement. The trunk of the body fell backward on the ground, and the senses were completely paralyzed by the shock. Thus he lay motionless amongst the wounded and dead during the rest of the night, not daring to move a muscle lest the loss of blood should be fatally increased. He felt no pain, but this he attributed to the stunning effect of the shock to the brain and nervous system. At early dawn he was roused by one of the medical staff, who came round to help the wounded. "What's the matter with you, my good fellow?" said the surgeon. "Ah," he replied, "touch me tenderly, I beseech you; a cannon ball has carried off my legs." The surgeon examined the limbs referred to, and then, giving him a good shake, said, with a joyous laugh, "Get up with you, you have nothing the matter with you." He immediately sprang up in utter astonishment, and stood firmly on the legs which he thought he had lost forever. "I felt more thankful," said the philosopher, "than I had ever done in the whole course of my life before. I had not a wound about me. I had, indeed, been shot down by an immense cannon ball; but, instead of passing through the legs, as I firmly believed it had, the ball had passed under my feet, and had ploughed a hole in the earth beneath, at least a foot in depth, in which my feet suddenly sank, giving me the idea that I had been thus shortened by the loss of my legs."

A gentleman who had a slight affection of the head became alarmed and took the matter so much to heart, that he fully persuaded himself that his head was growing unusually large. It became a settled conviction

in his own mind that it was absolutely swelling. After taking his wife to church, he had occasion to leave and attend a meeting of an association to which he belonged. He was very uneasy while there, occasionally feeling his head, and finally bolted again to the church to get his wife and go immediately home. In the hurry of leaving, he picked up another man's hat, vastly too small for him, and, in full run, clapped it on his head. What was his horror to find that it wouldn't begin to fit. In vain he tried to press it over his aching brow, but the beaver wouldn't yield a particle. This only strengthened his conviction in relation to his growing head, and, with the utmost speed, he gained the church just as it was breaking up and the congregation retiring. The congregation were amazed at his abrupt manner in calling for his wife and then a doctor.

"What is the matter?" said one.

"Oh, matter enough. My head's getting as large as a court-house door; a doctor—quick!"

In a few minutes a physician who was present came forward, but could not satisfy him that his head had no extra bulk. He finally prescribed free bleeding and cupping on the back of the neck. The patient and his wife started home, and called, on the way, on a cupper and leecher, to get his assistance in the matter. Just as the man of cups was about to commence operations, the lady observed that her husband had a strange hat and immediately informed him of that fact. He looked at it carefully for a moment, and his strange fancy of a swelled head seemed to give way under the disclosure, and at once he dispensed with the bloody preparations to reduce it.

Not only the body, but the mind and heart become diseased by giving way to the imagination; in this very manner was it that men were once led into heathenism. Paul states, in the first chapter of Romans, that the world "became vain in their imaginations, and their foolish heart was darkened," that is, I presume, their judgment was blinded. The reader will also see, I trust, the beautiful appropriateness of Scripture language, so often repeated as a caution against "vain thoughts," groundless, without reason; these vain imaginations lead to moral and physical death, and ought to be striven against as a religious duty.

APPENDICITIS AND MUCOUS COLITIS.

In appendicitis it is by no means infrequent that conscientious surgeons are embarrassed to decide the question whether to operate or not, or, if operation is decided upon, when. Lives are doubtless lost in many instances while waiting for a settlement of this momentous problem. In all likelihood

many patients have been appendectomized that might have recovered without the risks of surgical intervention. On the other hand, there can be no doubt but that many deaths have resulted from delayed operation. If the surgeon removes an appendix, which macroscopically and microscopically fails to present marked pathological lesions, he commits possibly a fallacy that is not unpardonable, inasmuch as the danger is small. Besides he removes by operation an organ which is an ever-present source of danger, if not an existing menace to life. It is questionable if there will ever be a fixed and firmly established rule as to when to operate. Every operator will, to a certain extent, have to be governed by his own ideas in his appendicitis cases. In our own practice we feel it our duty to operate in every case presenting unmistakable symptoms of appendical involvement, selecting the interval period if practicable, operating during the attack if the disease is progressing. We do not believe that appendicitis in any of its forms should be relegated to the care of internists, but regard it as essentially a surgical disease in every respect. These remarks are prompted by an editorial on the subject mentioned above in the Medical Record, August 4, 1906, referring to an address by Professor Dieulafoy, in which he called the attention of the profession to the similarity of attacks of mucous colitis and appendicitis and deplored the fact that patients who were the victims of the former disease were too often submitted to operations for removal of the appendix without benefit, or at least without improving the diseased condition that presented itself. According to the Nashville Journal of Medicine and Surgery, Dieulafoy does not believe that appendicitis is one of the results of entero-colitis and claims that in such instances the presence of pain in the right iliac fossa points to typhlitis instead of to appendicitis. He demands a better established diagnosis between the two diseases before submitting the patient to useless operation. Such diagnosis can not in every case be made, we are sure. We are of the opinion that the two diseases are frequently closely associated and when they are so that the removal of the appendix in the large majority of cases relieves fully and definitely the co-existent intestinal complication. It is well to remember that in no disease are the symptoms of the disease so uncertain as in appendicitis, and that often the pathological ravages of the disease are greatly in excess of what the symptoms, both subjective and objective, indicate. To draw a sharp diagnostic line between appendicitis and typhlitis is a diagnostic impossibility. In fact, we regard the existence of typhlitis without more or less appendical involvement as a rare condition, if not an impossible one.

Should the surgeon wait to make the diagnosis proposed, many valuable lives would be sacrificed that might have been saved by opportune operation. Such conservatism as is proposed in this address is not to be commended, inasmuch as it tends to work injury to the rational treatment of both appendicitis and mucous colitis.

Abstracts and Selections—Continued

PHILADELPHITIS vs. NEW YORKITIS.

Our esteemed contemporary, The Medical Progress, says that the manager, on a recent trip East, was favorably struck with his reception in various cities. Commenting further, the editor says, from a standpoint of hospitality, Philadelphia is very much like the typical Southern city. "There we find such men as Henry K. Wampole, that genial bundle of good fellowship, who will not say no and of whom a request is granted before asked. You would never know from your visit that Wampole's Milk Food was in existence if you waited for the subject to be brought up, but if you knew that it was a Wampole product you would never fail to prescribe it.

"Then there is Brother Ramsay, of William R. Warner & Co., who makes you feel that the house is yours. When it is known that a visitor from the South is on the place, all business stops for social activities and you go away with the feeling of confidence that Ingluvin must be the best thing for vomiting in pregnancy."

[Yes, Brother Moremen, you are right about this. If all men in business were of the Wampole-Ramsay type, the publishing and editing of a medical journal would be a constant source of pleasure. The success of these two firms is due to the individuality and honesty of "the men behind the gun." This accounts for the international reputation of their products.—Editor.]

JOINT INFLAMMATIONS IN SUCKLINGS, AND THEIR ETIOLOGICAL RELATION TO LATER DEFORMITIES.

G. Drehmann, Breslau (Zeit f. Orth. Chlr.), after a review of the literature and report of cases, concludes that these typical joint inflammations that appear in early infancy, even as early as the second week, and are signaled by swelling and contraction, present a relatively good prognosis. The etiology is little understood. The symptoms may last several weeks, and may lead to suppuration. He is of the opinion that a relationship exists between these affections and subsequent deformity, such as coxa vara and dislocation of the hips.

HYDROZONE AND GLYCOZONE.

In the *Lancet* (November 19, 1904), we note the report of an important lecture on abdominal surgery, by Dr. Frederick Holme Wiggin, of New York, in which marked notice is taken of two preparations employed by him for treating the wounds—viz., hydrozone and glycozone.

We have since become convinced, from our own investigations, that these two agents are not only remarkable allies of the surgeon, but products which can be made of the highest possible value in domestic medicine. Though the uses of both are very wide, we will confine our remarks here mainly to hydrozone. This is an exceptionally strong solution of hydrogen peroxide (30 vols.), free from barium salts and superfluous acids. This latter feature is very important; for, it is the presence of these salts, combined with excessive acidity and limited strength, that has diminished the value of the peroxides hitherto commercially produced.

The powerful oxidizing effect of peroxide of hydrogen upon organic substance is recognized by medical authorities throughout the world; but, to test for ourselves the claims of hydrozone as an antiseptic, we made a series of germicidal experiments.

The organism, known as *bacillus coli communis*, was employed as being one of widespread occurrence, and one which is always present in sewage. A vigorous growth of this was grown in broth, and equal volumes of it were exposed to the action of (1) phenol solution (1 in 80); (2) undiluted hydrozone; (3) equal volumes of hydrozone and water; (4) one part of hydrozone mixed with three of water. The action was allowed to continue for two minutes, when a subculture was made from each mixture. At the expiration of five minutes, another subculture was made; and a third was made at the expiration of ten minutes. These subcultures were then incubated at 20 degrees C. (68 degrees F.), and were examined at the end of 48 hours. Those cases in which the organisms showed signs of growth are marked by a * in the following table; those in which no growth was observed are indicated by a †:

No. of Solution.	After 2 mins.	After 5 mins.	After 10 mins.
(1)	*	*	†
	(very slight growth)		
(2)	†	†	†
(8)	†	†	†
(4)	*	*	†
	(very slight growth)		

It is obvious from the foregoing table that hydrozone is a great deal more powerful in its action on the organism employed, than is 1 in 80 carbolic. It was also shown that glycozone (undiluted) is about equal to 1 in 80 carbolic.

These experiments fully confirm the claims made for hydrozone and, also, indicate one of the causes that render it so effective a cure for a wide range of maladies. It is not only an antiseptic, but it is an entirely innocuous one; for, while it is capable of destroying pathogenic germs, it is quite harmless to healthy tissue. This, of course, can not be said of carbolic.

The healing action of hydrozone is obvious to the unaided eye, for when it is applied to a diseased surface, it may be seen stimulating healthy granulations and gradually building up the tissues. We have seen its effect on a large number of lesions, which can not be enumerated here. It acts as ozone does; and, like nascent oxygen itself, when applied to a wound it increases the circulation and acts as a stimulant. Immediately the liquid is applied to an open wound, an effervescence commences and the wounded tissue can actually be seen uniting by a process of granulation, the healthy tissue proliferation being extremely rapid. The cessation of the effervescence indicated the destruction of pus.

This, however, is only one of its uses, for the internal administration of hydrozone has long been recommended. In infectious diseases and in diphtheria there can be few things equal to it, owing to the property it possesses, as shown by our experiments, of destroying low organisms. The range of diseases for which it is recommended is wide. It covers diseases of the nose, throat and chest; diseases of the genito-urinary organs; inflammatory and contagious diseases of the alimentary canal; skin diseases; diseases of the ear and eye; and many dental conditions.

Glycozone may be regarded as an adjunct to hydrozone. Its effect is slower; but, as a dressing, after hydrozone has been applied, it acts most efficiently, continuing the work commenced by hydrozone. Sometimes hydrozone, taken internally, causes slight nausea, then it is well to commence with the milder glycozone.

We have watched the effects of these remedies, particularly in open sores, diseases of the nose and throat, and ulceration of the stomach; and, from the remarkable results we have seen achieved, we are satisfied that the general claims advanced—vouched for as they are, by the widest medical authority—are not by any means excessive. To Professor Marchand we award the Science Siftings' Certificate of Merit. [Abstract of editorial from Science Siftings, London, Eng., April 8, 1905.]

BRAIN TUMOR AND TRAUMA.

E. W. Holmes (American Medicine) says that the pathology of a traumatic brain growth is not different from that of a tumor

elsewhere. The upright posture renders the cranium more liable to injury, and in severe traumatism the diffusion of the force increases the danger to the brain.

The direct influence of the blow is shown by the tumor appearing at the seat of injury, the cortex and the cerebellum therefore being the parts of the encephalon most vulnerable and most liable to tumor, but by reason of concussion and contrecoup deeper parts and parts at a distance may be affected, as proved by the clinical evidence of tumor.

The fact that the brain is so well protected from infection from without, so long as its outworks, the scalp, the skull and the meninges, are intact, militates against the bacterial origin of tumor, and favors the belief in the cellular, nutritional and formative element as causatives of new growths.

We find the same variety of tumor here as elsewhere, though from traumatic causes (excepting cysts) sarcoma and gumma would seem to bear the greater proportion.

The time of the appearance is without limit, in brevity or in duration.

A completely kept history of the individual is of the greatest importance in enabling us to make a diagnosis at the very onset of the disease, or by exclusion in the more neutral areas of the brain.

WATER ANESTHESIA IN SURGERY, AND ITS SUGGESTIONS IN MEDICINE.

Joseph Clements describes two cases illustrating the effects of the injection of distilled water. In one case five hemorrhoids were injected with the water, emptied, clamped, tied and cut away. The operation took about fifteen minutes, and the patient returned home at once after the operation. In another case two fistulas were opened and scraped, one after the injection of water, and the other without water injection. In the last process the pain was intense. The writer describes the process as follows: The water enters the interspaces of the tissues and fills them; the pressure of the distension causes rapid osmosis into the intracellular interspaces which are between the granular appearing substance, the protoplasm, temporarily suspending intracellular respiration. This, like the heart-beat, is incessant, and when it is stopped, local death is caused for the time being. The nerve centers are paralyzed and no afferent impulse is sent, and no response arises in the central ganglion, and pain is consequently impossible. There is just as much of "curative" or other "property" in distilled water as in solutions of cocaine or any drug. In other words, there is none whatever. The "property," the therapeutic or whatever action arises, is protoplasmic. Upon the fact and principle of protoplasmic activity are to be interpreted all organic phenomena.

TRANSPPOSITION OF PARTS OF THE BODY BY AMNIOTIC BANDS.

F. Ahlfeld (*Monatsschrift für Geb. u. Gyn.*): The discussion does not include the transposition of whole organs, as shown in cyclops formation, or in the large hernias of brain substance or abdominal organs, but takes up the less frequent forms of malformation, as when a whole limb is ligated off by an amniotic band and then transplanted upon another part of the fetal body or its appendages.

Martin's case, published in 1850, showed that it is possible for the upper arm to be gradually tied off by such bands, and the severed member to be born with the child, who showed a fresh amputation wound.

It is possible that before the amputation was complete, while the peripheral portion was still obtaining nourishment through the vessels in the pedicle, the part may be drawn by the band or adhesion to another portion of the fetal body or membranes, where it may continue to develop until the vessels of its pedicle are either torn or obliterated. That this sometimes actually occurs is shown in a case reported by Zagorsky, in which the amputated right foot hung from a band passing from the site of the amputation to the left foot.

If the ligated part lies in close proximity to another portion of the body, as it does in early embryonal life, and is held there by the amniotic band or adhesion which finally amputates it, it may adhere to the other part, and the stump, continuing to grow, soon changes its position with reference to the amputated part, so that the latter may be found attached far from its normal place. Such a case Ahlfeld presents in which the foot was found attached to the buttock. Other cases have been described where the severed part was found attached to the placenta.

THE OCULAR ORIGIN OF MIGRAINE.

George M. Gould (*Journal of the American Medical Association*) notes the confusion that exists in regard to the conception of migraine in the literature and is especially severe on the neurologists and others who have not accepted eyestrain as its general prevailing cause. Of all atypical diseases, he says, migraine is, by all odds, the leader. This is, first, because its cause eyestrain, is of a thousand different kinds and intensities, and second, because vision is so bound up in some way with almost every physiological activity, every psychic and bodily function, that the symptoms produced by its derangement are most multifiform. The infinitely varied morbid cause or seed is planted in an infinitely varied soil. He gives the history

of the eyestrain theory of its causation, and quotes from a large number of writers who have reported cures of the condition by correction of ocular defects by proper fitting of glasses. He says: "I could give the details of perhaps a thousand cases of 'migraine' or sick headache cured by glasses. I should say that 90 per cent. of cases are immediately curable, and a large proportion of the rest curable in time, and as soon as the secondary systemic functional effects have been overcome. A few cases are incurable, because these secondary effects have become organic or too chronic to allow any cure. There are also rare cases in which mental reaction has become impossible.

NERVOUS EXHAUSTION IN WOMEN.

In these days we hear of a great number of women who suffer from nervous exhaustion. The increasing complexity of our life is in a large measure accountable for this. The simple housekeeping, simple fare and simple pleasures of our ancestors are things of the past. If a woman wishes to keep abreast of the times and associate with other wide-awake women, she must read newspapers and magazines and study various subjects that her grandmother never heard of.

Her household duties are just as difficult now as ever before, if not more so; and social functions are more elaborate, and require forethought and careful preparation.

Women who make their own living are required to work as men do for many hours every day. They can not be excused for three or four days each month at their menstrual period, but, no matter how much they suffer, they must be at the counter or the desk as usual. This is a terrible strain on a woman's vitality, for naturally she should rest not only while the flow is on, but also for a few days succeeding it, to allow the process of repair to go on to the best advantage.

Women of sound health and great vitality can stand the strain of social duties or business life and seem all the better for getting out and mingling with the world, but the majority of women are not so endowed. They sooner or later become exhausted, and this frequently manifests itself in a nervous breakdown.

These women need a change of scene and of occupation; when these can be procured, there is rarely need of any medicine, but where it is impossible we must have recourse to drugs. One of the best prescriptions for these patients is a mixture of sumbul, arsenic, iron and asafetida. These are skillfully combined in the Pll. Sumbul Comp. of Warner & Co., and one or two pills after each meal will in a few weeks make a great improvement in the patient's condition.

MEDICAL GLEANINGS.

For rachitic diarrhea, Dr. Hare recommends the administration of sodium phosphate, lime salts and common salt freely.

For nervous dyspepsia with diarrhea, Dr. William Fox recommends hydrochloric acid with tincture of nux. vomica before meals.

France contains more people over sixty years of age than are found in any other European country. The next greatest percentage of old people is found in Ireland.

Heller says that in all cases of hydrocephalus, congenital syphilis should be looked for, and, if found, antisyphilitic treatment should be energetically adopted.

In acute parotitis use combination of bromide, iodide and salicylate of sodium with small doses of morphia sulphate if there be pain.

Do not forget that the safety of the eye in syphilitic iritis depends mainly on the promptitude and efficiency with which atropin is employed.

Aromatic sulphuric acid is at times a useful remedy for night sweats in phthisis. It possesses some marked disadvantages. It could not be used for any length of time; it frequently produces constipation.

Dorsey's magnesia mixture is, we believe, the most important laxative and it heads the list at the Indianapolis City Hospital. It consists of a saturated solution of Epsom salts and a drachm of aromatic sulphuric acid to the ounce.

The care and attention to disinfections given in France to laundries is worthy of note; if equal care were given to the books loaned by public libraries, much disease would be avoided.

In bronchial asthma, try the following: Iodide of ammonium; fluid extract of grindelia robusta; tincture of lobelia; tincture of belladonna; fluid extract of glycyrrhiza; syrup of tolu up to four fluid ounces. Take a teaspoonful in water, t. i. d.

In dispensing mixtures containing salicylate of soda, be sure the measure-glass is perfectly clean, as the slightest trace of an iron salt will result in a violet-blue appearance, and make the patient think that it is "not the same medicine" on account of the alteration in color.

Fatty Degeneration of the Heart.—N. S. Davis, Jr., recommends iron, quinine and strychnine as general tonics; digitalis, strophanthus, caffeine temporarily to strengthen beats and restore equilibrium; respiratory gymnastics; good nutrition and gentle exercise without fatigue or exhaus-

A Physician's Experience with
MODOFORMOL and VARICOSE ULCERS.

"I have used Modoformol several years with great benefit to my patients and pleasure to myself. Two cases in particular I will mention:

(A) A man, forty years old, had been operated upon for varicose ulcer on the leg, curettement of same, then continued treatment for about one year.

When he came under my care I used Modoformol each time I dressed the ulcer and in three months he had a complete cure. It is now three months since treatment and he wears an elastic stocking and has no trouble whatsoever.

(B) A man, sixty years old, suffered with varicose ulcers for many years.

He came under my care at the Union Hospital at Lynn, in January, 1906; after two months' treatment he was greatly improved, ulcers healed so that he now has no pain and is able to walk, which he had not done for many weeks previous to his coming to the hospital. Modoformol was the only treatment used.

Respectfully yours,

Lynn, Mass., May 3, 1906.

_____, M. D."

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The New Albany Medical Herald.

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ORIGINAL.

THE FUTURE OF SURGERY.*

By H. S. Munroe, M. D., Davidson, N. C.

The history of surgery in the nineteenth century is the most interesting part of medical literature. The progress made is wonderful, and far beyond the expectations or even the dreams of the old masters of the art. It has attracted the thought and labor of many of the brightest men in our profession, who earnestly devote their talents and their lives to the advancement of its cause. The art has gradually advanced; many new discoveries, based on long scientific study, have been made; till to-day it is work is based on scientific facts. With such a wonderful past leading up to the remarkable present, with all its achievements, we are prone to wonder what the future will be and what there is left for us to do to add to the glories of surgery.

The present condition of surgery gives us opportunity for successfully dealing with the great majority of surgical cases, and for saving the lives and relieving the suffering of thousands who were in olden times allowed to die or live lives of pain and misery. The introduction of anesthetics, the antiseptic method of operating, and the modern aseptic technique, along with a more thorough knowledge of surgical conditions, have broadened the field of surgery. The modern well-equipped hospitals all over our country have greatly increased the proper equipment for carrying out the work successfully. With such a status of affairs we are apt to think that surgery is already a perfected science, that there is no more in store for us, and little room for progress. But there must be a future, and it will reveal many things of which we can not now conceive. It is not my purpose to try to follow the example of Jules Verne, many of whose prophecies came true, by presenting visionary images and seeming impossibilities. Such things are interesting to think of, but are of no practical value to scientific men. I wish to mention some of the

problems that confront us and point out the most important needs as we see them at the present time. I am indebted to Dr. Keen of Philadelphia, Dr. Senn of Chicago, and Dr. Tiffany, of Baltimore, surgeons of national reputation, for personal letters giving their opinions of our shortcomings and the greatest needs of the surgeon to-day.

Sepsis is the worst enemy with which we have to deal. Since the time of Lister we have been able to combat it more successfully, but it still remains the dreaded foe of the operator. The means at our command are not always used, or are often employed carelessly and in an ignorant manner. Every practitioner who attempts to do even the minor surgical operations should realize the importance of proper cleanliness in every case. A surgeon is a dangerous man if he does not take all the precautions for the prevention of sepsis, and make himself thoroughly familiar with all the knowledge now at his command. It is true that sometimes cases carelessly operated upon will recover with no ill results, but such success is a sign of the goodness of nature instead of a good surgeon. Only continuous success in a large number of cases is proof of good and efficient work. Dr. Tiffany considers the four greatest needs of surgery to be, (1) cleanliness; (2) more cleanliness; (3) continued cleanliness; (4) operative dexterity. These four great needs of our profession can now be accomplished by patience and practice.

The study of antiseptics deserves our special attention. They have served a mission but are far from accomplishing the good we hope to come from them. With our knowledge of bacteria, we need more efficient germicides that will kill the infective organisms with certainty without devitalizing the living cells. We now have no certain and effective method of converting already infected into non-infected wounds. Aseptic surgery is triumphant, but when a large suppurating area is present we are dependent largely upon the human organism to combat it. Our germicides and antiseptics do some good but are from effective. Is there not some drug or serum forthcoming to solve the problem? So far the antitoxins have proven unsuccessful, but in serum-therapy there probably lies hidden a

* Read before the N. C. Med. Society.

great aid to the surgeon. Is there not some serum to be discovered that can immunize men to the pyogenic cocci or else antagonize them and their toxins when present? Is it not possible that serum-therapy will revolutionize the whole realm of sepsis and replace the long and tedious preparations for tedious work? It remains for the future to decide.

Success very often depends upon the judgment of the operator. Every surgeon must think for himself. Too often his conclusions are fallacious and the results detrimental to the welfare of the patient. To know when and when not to operate is an important element in the future of surgery. Many lives are lost annually, though not often reported, because of an unwise or untimely use of the knife. On the contrary, the postponement of surgical aid causes many patients to grow worse until it is too late to save them. Such is the common experience of every physician. There is a tendency for too much surgery with too little thought of the danger connected with it. In this surgical age it is often a hard question to decide whether or not interference is indicated and we need more light and more accurate means of coming to definite and satisfactory conclusions. It is our duty to humanity to make a more thorough study of the proper indications for operative measures in every obscure case before the patient is subjected to the dangers connected therewith, or denied the benefits to be derived therefrom. At present we are far from perfection in this line and many mistakes are made by most conscientious men.

Chloroform and ether have long given us good and efficient methods of producing general anesthesia. The mortality from their use is low, yet in certain individuals and in prolonged operations, the anesthetic constitutes an element of danger which is far from satisfactory. A patient under profound narcosis from either of these drugs is always on the border line of death and is unsafe unless in the hands of an experienced anesthetizer. We need a safer anesthetic; one which will produce sleep and complete loss of sensation without depressing the vital centers of the individual. It might be used hypodermically, by mouth, or by inhalation. The hypodermic method would furnish us an accurate means of estimating the dose administered, for by inhalation we never know how much is absorbed.

Shock is another condition which is often not overcome by all the means at our command. The patient may die from the shock of injury before he can react sufficiently for surgical aid, or he may never be made to react from the profound shock so often following prolonged operations. Too often

do we stand by the bedside of a patient to see him gradually sink away regardless of all the powerful stimulants and other remedies we may administer. We have learned much about the cause and pathology of shock, but there is a great need of better and surer ways of preventing it and for some remedy to bring about a speedy reaction in case it occurs. Is there not some remedy to be devised by which the vasomotor system can be more powerfully stimulated, and the whole nervous mechanism made to respond to its stimulating effect? Atropin and adrenalin are steps in the right direction, but do not meet all the indications.

The various kinds of tumors constitute a class of surgical troubles of which we are ignorant. There has been much investigation made of the structure of these growths, and we now know there is a great variety of them affecting all ages, sexes, races and classes. But we do not yet know the cause of such growths, their exact nature, or their origin. Bacteriology has as yet given no satisfactory explanation. We have no means of preventing or combating them except by complete removal, which is often difficult. The malignant forms even defy removal, and are liable to return in their original nests or in other parts. The surgeon is hopeless when confronted with a large cancer, and his only prognosis is that the patient is doomed to an early and horrible death. There is much room for investigation and much to be learned about the cause, prevention, and cure of both the benign and malignant tumors. If due to bacteria, we should find them out; if to some faulty local metabolism, we should know it; if to increased circulation or simple excessive growth of cells, we should not be in doubt of the fact; or if from some local inflammation or disease, we should recognize it.

Tuberculosis has been called "the Great White Plague," because of the vast number of deaths it causes annually. Koch years ago told us the cause of it, but he has failed in all his attempts to bring forward a cure. The tubercle bacillus is a very frequent and malicious visitor to all parts of the body. The pulmonary form falls into the hands of the physician, but the surgical lesions are common and hard to contend with. Lupus, or tuberculosis of the skin, which is so superficially located that all surgical remedies can easily be applied, and yet is so resistant, gives us a good example of what we have to deal with in tuberculosis of the deeper structures. The medical profession can confer no greater blessing upon humanity than by finding some practical and efficient way of curing tuberculosis in the lungs and other tissues of the body. Surgery has done her best, but no surgeon

wants to operate upon a tuberculous area because of the unsatisfactory results which are sure to follow. We need an effective method of disinfecting areas which are operated upon, or some specific to counteract the action of the bacilli and destroy them. Tuberculin and tuberculol have done good in the hands of some, but they are not giving the results we want. The whole subject of tuberculosis is one of the greatest problems that confront both the surgeon and physician to-day. It yet remains for a man to immortalize his name by giving us a means of establishing immunity or of curing the disease after infection takes place.

There are numerous other defects and shortcomings in surgery. There is also a great deal known about the subject at the present time, and enough to keep us working for years to master. Those of the largest experience and greatest knowledge are the best surgeons, but none are perfect, and there are many conditions for which nothing can be done. Year by year we hope these mysteries will be solved, and that the surgery of the future which we must help to make will be no less interesting and of as great value to our fellowmen as has been that of the past.

APPENDICEAL ABSCESS, PATHOLOGY AND TREATMENT—REPORT OF CASES. *

By S. M. Mason, M. D., Clarksburg.

My reason for bringing before the society this much-discussed subject is to emphasize, as well as possible, nature's attempt to protect its victims, and not to urge the peri-appendiceal abscess formation as the condition par excellence for appendiceal operations. I wish to present for your consideration and discussion the pathological conditions, both gross and microscopic, found in the different forms of appendicitis, and to describe and advocate one method of operating after the formation of the abscess.

It was in 1827 that this minute portion of the human anatomy first attracted attention as a source of danger to life, its ailments were first described in 1846 by Volz, and it was not until 1848 that any one knowingly operated upon a case of appendicitis, and this had progressed to the stage of abscess formation, so the first operation we have any knowledge of, for this disease, was performed for a large peri-appendiceal abscess. Since this time books and papers have been written by the thousand, and as many different methods of treatment ardently advocated. Heroic methods of treatment have been practiced against the ravages of this little organ, and even

though quite normal, when its abode is once invaded, it seldom escapes being removed or inverted. Yet we seem unable to eliminate the vermiform appendix from our anatomical equipment, and its afflictions have repeatedly caused great suffering and many deaths, often because of tardy and uncertain medical advice given until the patients are already in a moribund condition, when they are sent to a surgeon with every promise of a successful result. So it behooves each and every practitioner of medicine or surgery to be always on the alert and thorough in his examinations, lest he find many cases of dyspepsia, intestinal colic or bellyache, to be well-defined cases of appendicitis already progressed to abscess formation before their true nature has been recognized.

Before going into the pathology of the disease, it is well to note that there is no one specific micro-organism as the sole etiologic factor in the production of appendicitis, but that it is usually a mixed infection, and any, or all, of the following organisms may be found; streptococcus pyogenes, bacillus lactis aerogenes, bacillus pyocyaneus, etc. It is worthy of mention that the streptococcus is not usually present, and that when present it signifies a virulent infection with a grave prognosis.

For scientific as well as practical purposes appendicitis is conveniently divided into the following stages or classes:

First—Catarrhal.

Second—Ulcerative.

Third—Perforative.

Fourth—Gangrenous.

In the first class we find the mildest form of the disease, consisting of congesting and oedema of all the coats of the appendix, especially the mucosa and muscularis, with retention of its contents, which are generally of a muco-purulent character. Microscopically, there is an intense infiltration of all the coats with polynuclear leucocytes, accompanied by destruction of the mucosa with hemorrhagic and necrotic areas distributed throughout the entire organ. The microscopic conditions differ only in degree in all these cases, and are not so varied as would seem from the gross appearances.

In the second class there is an exaggeration of the inflammatory condition found in the first class; the fluid contents becoming purulent in character, increased tension of the walls of the appendix and ulcers, one or more, forming on the mucous surface, these ulcers being caused largely by the mechanical pressure of the contents or of foreign substance. As the ulcer deepens the inflammatory trouble extends, exciting fibrinous peritonitis with adhesions, involving the surrounding coils of intestines, omentum and parietal peritoneum; as a re-

* Read before the West Virginia Medical Association.

sult of these adhesions the distended tube is bound fast in this inflammatory mass. In a large majority of these cases an abundant sero- or fibrino-purulent exudate, generally grayish in appearance, is found surrounding the appendix in the peritoneal cavity even before any evidence of perforation. This condition is most often present from the beginning of the third day to the seventh or tenth day, after the beginning of the attack. Microscopically, the polynuclear leucocytic infiltration is present, but extending more uniformly into all the coats of the appendix, with more general and extensive hemorrhagic, necrotic and gangrenous areas. These hemorrhagic, necrotic and gangrenous areas either become infiltrated with leucocytes, and undergo resolution with absorption of the contents of the tube and the peritoneal exudate in cases where Nature does her work well, or these ulcers extend and terminate in rupture of the tube and the formation of a localized abscess, or a general peritonitis.

In the third class, we find the appendix perforated or ruptured. When the tension on the walls of so small a tube is not relieved in from twenty-four to forty-eight hours, the circulation is cut off and the rupture or gangrene soon sets in, and it is here that the periappendiceal abscess is formed. The rupture of the appendix takes place in the direction of the least resistance; sometimes this is through the bowel, in which event a spontaneous recovery speedily sets in, but the most frequent site of rupture is through one of the ulcers. Often, when the peritoneal adhesions are sufficient, there is a temporary subsidence of the acute symptoms with the rupture of the tube and relief of pressure. So, now, we have the small abscess, or contents of the appendix, ruptured into the walled off portion of the peritoneal cavity, forming the peri-appendiceal abscess, the walls of which are made up of the intestines, the omentum and the fibrinous peritoneal adhesions. This abscess will burrow in the line of least resistance, either toward the liver, the pelvis, or the abdominal wall, and will finally rupture either into the bowel, the vagina, the bladder, the ureter, into the general peritoneal cavity, or through the abdominal wall. When it ruptures into the peritoneal cavity, general peritonitis and death soon the scene. Microscopically, the walls of this abscess cavity are found to consist of a resistant pyogenic membrane, composed of leucocytes imbedded in a fibrino-plastic exudate, uniting the neighboring structures in order to strengthen the barrier against the invasion and spread of the infection.

In regard to the treatment of these cases, I will assume that you are all agreed as to the advisability of surgical intervention in all cases of appendicitis, and shall simply

deal with the best time and method of operation. Whenever possible, I consider the ideal time for operation within forty-eight hours, and better still, within twenty-four hours from the beginning of the first symptoms, but think that the best practical guide is to operate as soon after the diagnosis is made as possible, and the diagnosis should be made in the first twenty-four hours, and not wait until the third or fourth day, dilly-dallying. The only exception in regard to this rule as to when to operate, should be some unforeseen conditions governing the particular case.

However, the operation that I am about to describe is taking for granted that an abscess has already formed, and consists of free incision and drainage of the cavity or cavities extraperitoneally, whenever possible, and without irrigation.

Operation: Make the skin incision after the fashion of either McBurney or Sonnenburg, as near Poupart's ligament as is consistent with the position of the abscess, expose the field thoroughly, pack sterile gauze over the surface of the incision, and any unprotected peritoneal surfaces or coils of intestine that may be exposed. It is not safe to allow any pus to come in contact with uninfected peritoneum. When the field for entering the abscess has been exposed, and the tissues all well protected by gauze, then the opening is made, and not before. As soon as the pus begins to escape, it is rapidly absorbed on small pledgets of gauze in holders, a fresh one being ready before the saturated sponge is removed from the opening, and this is continued until all the pus is absorbed, and during the entire process, none, or as little as possible, is allowed to come in contact with the uninfected tissues. When the spontaneous flow of pus ceases, the incision may be enlarged, and the remaining pus mopped out thoroughly, with dry sterile sponges. At this time, if not before, when there is a fecal communication, you will notice an escape of gas and feces which must also be sponged out. Then, the exploring finger should be introduced to ascertain if there is any other abscess cavities, or if the appendix is to be found. In the first case, the abscess must be opened through the one already entered, and in the other case, remainder of the appendix is enucleated from the adhesions, when this can be done without fear of opening into the peritoneal cavity, but under no circumstances should the search for the appendix or other abscess cavities be carried to the extent of breaking up protective adhesions, and entering the peritoneal cavity. I would absolutely condemn the method often advocated of washing out the peritoneal cavity with antiseptic solutions, as these are sure means of disseminating the infection, producing general peritonitis, and adding one

to your mortality list. The operation is finished by packing the cavity, arranging the gauze so as to drain from the most dependent part of the incision, but not to make any pressure upon the intestines. The remaining portion of the incision is then closed with interrupted silkworm-gut sutures. The chief features of this gauze drain are: The entire infected area should be drained; it is a protective pack and must be loosely applied; it must have free exit; when too tight it may be loosened but must not be removed too soon. In all cases, uncomplicated by a fecal fistula the gauze should not be removed until the fourth or fifth day, and in small abscesses it need not be touched for five or six days. It is by the too early removal of this drainage that the patient's only chance of recovery is often taken from him. In the fecal abscess, the adhesions are usually well formed, and no harm is done by changing the dressing whenever soiled. The cases where the abscess has already ruptured, and general peritonitis exists, had better be left to the tender mercies of those who advise that more die from operation than from appendicitis, for by operating upon this class of hopeless cases, others who deserve the benefits of the operation are persuaded against submitting to it at the proper time, and the general cause of surgery is given a black eye. It is my belief that there is, or has been, a period in every case when it could have been operated upon in perfect safety. I shall report to you the histories of a few patients that have come under my care for operation during the past two years, as serving to illustrate most admirably this class of cases. These are selected from twenty-four cases of chronic appendicitis, operated upon by the above method, without a death.

Case I. C. J., aged nineteen; admitted to the Kessler Hospital August, 1903; less than six hours after development of first symptoms, in condition of profound collapse; tongue coated white, expression anxious, temperature, 99 degrees, pulse almost imperceptible at wrists. At operation, three hours later, vermiform appendix was found necrotic and gangrenous, containing a small amount of pus; it was covered with a fibrino-purulent exudate, and there was considerable exudate in the peritoneal cavity. Appendectomy performed, gauze drain instituted for four days; recovery was rapid, and complete; patient was discharged, cured, on the twenty-sixth day. On further inquiry, it was learned that this patient had suffered from subacute attacks, having been mistaken for indigestion.

Case II. L. D., male, aged eleven; patient of Dr. H. V. Varner, Clarksburg, W. Va., admitted to the hospital August, 1903. Had been sick four days with symptoms of intestinal obstruction, persistent vomiting

and constipation, but no localization of pain or muscular rigidity. I found, upon examination, the next day, a large deep seated periappendiceal abscess, extending both toward the liver and down into the pelvis. In spite of thorough opening and every effort to keep the incision open, it closed too rapidly, and on the twenty-first day he was again brought to the operating room, the incision enlarged, a large quantity of pus evacuated, and two other abscess cavities were found and drained through the original opening; recovery complete and rapid after this.

Case III. W. D., male, aged forty-six; admitted to hospital, May, 1904; had been sick two weeks with symptoms of acute indigestion, having been taken with severe pains while walking on the street, pain so severe and sudden that he was unable to stand or walk; he had to sit down on the sidewalk for some time. All attempts to elicit evidence of appendicitis or other suppurative condition negative for two weeks, though repeated examinations were made with that in view. On fourteenth day, evidence of induration appeared near, and parallel to Poupart's ligament. I removed him to the hospital and operated the next day, finding the appendix situated low down, and adherent to the posterior aspect of the caecum, and ruptured; large abscess found extending in direction of ascending colon; pus evacuated, appendix removed, and gauze drain instituted; recovery complete.

Case IV. J. C., male, aged thirty-two; admitted to hospital, March, 1905. Had been taken sick while at work, two days before, with what appeared to be severe acute intestinal colic, attended with general abdominal pain and vomiting, and followed by obstinate constipation up to the time of operation. At operation, seventy-two hours after first symptoms developed, the appendix was found ruptured, and an abscess, containing several ounces of pus, was located at its base. This case was treated by incision, removal of the remaining portion of the appendix, and gauze drainage; recovery satisfactory, wound completely healed, and patient left hospital on twenty-seventh day. This case was typical of intestinal obstruction, no localization of symptoms, no rise of temperature, yet the suppuration had progressed to rupture of the tube and abscess formation.

Case V. D. F., Italian, aged twenty; admitted to hospital in July, 1905. He complained of a lump in right side of abdomen, extending toward right lumbar region; it appeared to contain pus, and upon operation, the same day, was found filled with a large quantity of purulent fecal matter; the cavity connecting with the bowel, by a large opening. Operation consisted of incision and gauze drainage; the bowels moved

freely through the incision for three or four days, but the fecal fistula closed completely, in ten days the wound completely closed, and the patient was discharged on the twenty-eighth day. This case had been of several months' duration, had caused no acute symptoms. He worked as a laborer the day previous, and walked to the hospital the day of the operation.

Case VI. C. W. H., male, aged about twenty-two; patient of Dr. F. E. Hyer, Camden-on-Gauley, W. Va.; admitted to the hospital, March, 1905; patient had been sick about one week before admission. He presented a case of well-developed appendiceal abscess; incision was made very near Poupart's ligament; dissection was continued, external to the peritoneum, and thus the abscess was entered without contaminating the peritoneal cavity. After the flow of pus ceased, the escape of gas and fecal matter proved the presence of a bowel communication; gauze drainage used. Bowel opening closed in one week, otherwise convalescence uneventful and complete.

I have mentioned the above cases, not to illustrate any one point, but to recall, to all present, his responsibility, when in attendance upon what appears to be a case of the mildest nature, and to impress upon you the importance of bearing the possibility of appendicitis always in mind, so that as many as possible may have the option of the early operation, and that the percentage subjected to the complications of abscess, fecal fistula, peritonitis, adhesions, and secondary hernia, may be greatly reduced.

A CASE OF FIBROMA OF THE ILEUM, PRODUCTING OBSTRUCTION BY INVAGINATION; ENTEROTOMY; RECOVERY, WITH A BRIEF CONSIDERATION OF BENIGN GROWTHS OF THE INTESTINES AND METHODS OF OPERATING.

By H. A. Royster, A. B., M. D., Raleigh, N. C. Professor of Gynecology and Dean of the Faculty, Medical Department, University of North Carolina at Raleigh, Gynecologist to Rex Hospital, Surgeon-in-Chief St. Agnes Hospital, Surgeon to the Southern Railway.*

Benign tumors of the intestines are by no means uncommon, and yet they are discovered rarely enough to justify reports of instances in which they cause serious symptoms. They seldom give rise to intestinal obstruction, except from invagination due to their weight. The classification of Leichtenstein, as given by Senn, divides them into fibromata, myomata, submucous lipomata and mucous polypi. The same authority

states that the rectum (including the sigmoid flexure) is the most frequent seat and the ileum next, while the duodenum and ileocecal region are singularly free from benign growths. According to Richard Douglas, of Nashville, Tenn., these tumors may be either solid or cystic. The former are adenomata, fibromata, lipomata and nevoids; the latter may contain blood, gas, or lymph. He considers the adenomata to be the most common of all. The structure of benign growths of the bowel differs in no wise from that of the same kind of tumors in other parts of the body. It is likely, however, that in the absence of careful microscopic examinations some of them will be designated as benign, when they are really undergoing malignant degeneration, and it must be kept in mind that carcinoma is the most frequent form of intestinal tumor.

The following case is the only benign growth of the intestines which I have encountered:

History. On January 8, 1905, Mr. R. R. S., aged forty-two, was referred to me by Dr. R. W. Palmer, of Gulf, N. C. A brief history elicited at the time of his admission to Rex Hospital, gave the following information: He has usually been a healthy man, and is free from any hereditary disease. In his youth he had intermittent malaria and sixteen years ago typhoid fever. His present illness dates back as far as six months, when he began to have occasional attacks of indigestion, and sometimes vomited his food. It was in the early part of September, 1904, about four months ago, that marked symptoms developed. He first had intense pain in the left iliac region, lasting one to two hours. These paroxysms recurred every week or so, becoming more severe and finally continuous. For the past month he has not been free from suffering for any considerable period. His bowels have been habitually constipated and the evacuations are always small in size. Mucus has often been passed, but never any blood. He has lost weight, but does not know how much. For four days his bowels have not moved, and for three he has been vomiting stercoraceous material at frequent intervals.

Examination—Temperature, 97 3-5 degrees Fahrenheit, pulse, 100. The abdomen was slightly distended. There was dullness over the descending colon and the sigmoid flexure, while to the inner side of this appeared a mass, as large as the fist, which was somewhat movable. The pain seemed to be chiefly in the epigastric region. Fecal vomiting still continued. The blood showed 4,700,000 red and 13,600 white cells; the hemoglobin was 70 per cent.

For the purpose of relieving the fecal impaction, which was obviously present, whatever else might be the primary cause of the

* Read before the Florida Medical Association.

intestinal obstruction, orders were given to administer hyoscine hydrobromate hypodermically in one-hundredth grain doses every four hours, and a high alum enema (one ounce of alum to a quart of water) immediately after the second dose of hyoscine. The drug was not well borne and had to be discontinued, but the enemas were very effectual, and after three had been given, followed by an ounce of castor oil, the patient seemed comfortable. The next day, January 9th, all traces of the impaction had disappeared, and the mass before mentioned was more easily made out. It was much smaller and more movable. A diagnosis of tumor of the small intestine, possibly malignant, was made, and consent given to operate.

Operation—January 10, 1905, under ether anesthesia an incision was made in the left semilunar line, its center being at the umbilicus. The mass was felt below and readily brought up. It was a portion of small intestine (ileum), invaginated and twisted, so that it appeared to be tied in a knot. Unfolding this without difficulty, a tumor was discovered in the lumen of the bowel. Through a one-inch longitudinal incision on the free border of the intestine, the tumor was delivered. It was spherical, smooth, of the size of a large walnut and pedunculated, arising from the submucous coat near the mesenteric attachment. An elliptical incision was made around the base of the pedicle, the growth cut away and the mucosa united with a continuous suture of fine silk. The bowel incision was closed by three rows of a continuous suture of fine silk, one on each coat, and an extra interrupted Lembert stitch of the same material on the peritoneal coat. The abdomen was closed without drainage and the patient made an uneventful recovery. Histological examination of the tumor proved it to be a pure fibroma.

Remarks.—The questions at issue in the management of such a case are: First, the diagnosis; second, the necessity for resection and anastomosis; third, the direction of the incision in enterotomy, and, fourth, the method of excising the tumor and closing the intestinal wound.

1. In this particular instance there could hardly be a doubt but that the bowel was obstructed by a neoplasm. The history pointed strongly to the evidence of a progressive growth, the symptoms showed intermittent periods of partial obstruction, and a mass was present, even after evacuation of the bowels by the preparatory treatment. These signs do not obtain in acute obstruction from other causes. An important matter would be the recognition of the character of the growth before operation, a difficult thing to do. There was some reason for suspecting malignant disease in this

patient, and such tumors are much more frequent than innocent fibroids. And yet, if this suspicion had controlled the situation, the man might still be a sufferer or would not now be alive and well. Too often patients are denied the privilege of an exploratory incision because of the assumption that a certain growth is cancer. "Seeing is believing."

2. Many cases of benign tumor of the intestine demand the removal of a more or less extensive section of the gut with anastomosis of the severed ends. This depends largely upon the condition of the bowel adjacent to the growth. Watson, of Boston, reported last year a case of fibro-adenoma of the ileum, which required resection of fourteen inches of the intestine. He found the intestinal wall inflamed and thickened for twelve inches above the seat of the tumor, and the mesentery hypertrophied, with its glands enlarged and indurated. In my case the bowel was perfectly normal, except for thickening at the pedicle and the usual dark discoloration of the invaginated portion, which quickly returned to its natural appearance after being released. Such matters are to be determined upon the same principles which guide us in operating for ileus from any cause. If the growth is thought to be malignant the proper procedure is either a resection or enterostomy; if it is benign, enterotomy is the course to pursue. It stands to reason that opening the bowel by a small incision and closing it securely is much more easily and quickly done than an anastomosis, and in the hands of the average surgeon a much safer operation.

3. My only reason for referring to the direction of the incision in enterotomy is to quote a suggestion of Senn, to which my attention has recently been called, viz., that "the visceral incision should always be made transversely, and never in the long axis of the bowel, as is usually recommended, because transverse wounds can be more readily sutured than longitudinal wounds and the operation is less liable to be followed by stenosis of the bowel." In future cases it will be my purpose to apply this method. The only possible disadvantage may be that it would not furnish as much room for working. Fenger, in 1894, removed a myoma from the ileum through a longitudinal incision aided by an additional transverse one.

4. The plan practiced here of making an through the bowel mucosa, lifting the tumor out of its bed and closing the mucous membrane smoothly over the depression, is offered as the best possible procedure. Nowhere has it been seen in many text-books consulted, nor did it occur to the writer until just at the moment it was put into effect. Surely such a method is far superior to the

usual way of transfixing the pedicle, tying both halves separately and excising the tumor at a safe distance from the ligatures.

Closure of the bowel wound after the manner above described lends itself peculiarly to this class of cases. By suturing each layer separately, and then adding an extra Lembert stitch outside there is obtained a secure fastening of the slit with the least possible chance that contraction will supervene. In the ordinary closing of intestinal openings the edges are rolled in more or less at the expense of the lumen, as the peritoneal surfaces are brought broadly in contact, and every opportunity offered for stenosis.

PROCIDENTIA UTERI IN A VIRGIN.*

By F. J. Campbell, Ph. M., M. D., Fargo.

Procidentia, or prolapse of the uterus to the third degree is a true form of hernia and the usual problem of its care is that of all other hernias, viz.: The closing of the outlet in the abdominal wall sufficiently to hold the hernia within the abdomen. The methods vary with the location of the hernia.

Dr. McLaren states that in 99 cases out of 100 prolapse of the uterus is primarily due to the tearing of the perineum and pelvic fascia during parturition.

He is probably right in classing 99 per cent. of these cases as the result of neglected injuries at child birth. These injuries result in subinvolution and retroversion and are made worse by constipation.

With the long axis of the uterus coinciding with the long axis of the vagina, straining at stool, the dragging of a rectocele, coughing and lifting all tend to produce the complete prolapse.

This is so commonly the cause that it seems to be accepted as the only one by most authors. Dudley mentions the pressure of a pelvic tumor as the occasional cause of prolapse, but speaks of repair of the vaginal outlet as the method of repair for relief of the prolapse.

On the other hand the largest pelvic tumors exist with the uterus in nearly normal position and I think they very rarely cause prolapse.

Emmett has "seen procidentia in young unmarried women in consequence of tenesmus caused by dysentery."

Cumson insists that "hystropexy without plastic operations on the vagina is absolutely useless."

The object of this paper is to report a case that falls not in the 99 per cent. class but among the 1 per cent.—not due to parturition.

It was so unusual a condition that the mechanics of the case proved an interesting study.

It did not admit of resort to the usual methods of radical cure by narrowing the vaginal outlet because of the fact that she was a virgin and her child-bearing functions must be preserved.

The patient was 15½ years old, of good general mental and physical development and of nutrition, though extremely irritable and nervous.

She began menstrual life at 14 and had been practically normal in function since. No pain and little discomfort during menses. No history of any previous sickness. No bladder irritations.

She attended public school regularly. Her mother consulted me not because the girl was sick or even felt badly, but because she had a "lump or swelling" that she feared was a rupture and thought it should have attention.

I had operated three years before on a brother of this girl for strangulated inguinal hernia and the family knew the dangers of neglected rupture.

Examination in the standing position showed the os uteri about two inches outside the vulva having the usual harsh, dry feel—the elongated cervix and bearing a small erosion near the os. It was easily replaced but promptly came out again when walking about. It had been in this condition for several months but was lower down of late so that she spoke of it to her mother.

Vaginal examination revealed a tumor filling the pelvis but not connected with the uterus. It was evidently an ovarian cystoma.

At operation a cyst of the left ovary was found above and on top of the uterus, weighing about ten pounds.

After its removal, together with the left tube, the problem which presented itself was how to hold the uterus up to its normal place. Being a virgin, the usual operative work to narrow the vaginal outlet could not be thought of, because, though the parts were greatly stretched, they should resume nearly their normal condition when the dilating wedge of the descending uterus was removed, and her future child-bearing functions were to be considered.

Again, I considered the operation of neutral fixation or suspension was contraindicated for the same reason, that it would interfere with future pregnancy by causing dystocia or miscarriage.

The necessity was to hold the uterus in a position of exaggerated anteversion so that its long axis would form an acute angle with that of the vagina. In this position straining would not tend to reproduce the hernia.

* Read before the North Dakota Medical Association.

This position was gotten by a modification of Webster's operation. The right round ligament was caught about two inches from the uterus and brought through a button-hole made in the broad ligament under the fallopian tube close to the uterus, thus doubling the round ligament on itself, and it was then firmly sewed to the posterior surface of the uterus well down.

The left tube had been removed with the tumor, so the left round ligament was fixed in the same relative position to the posterior surface of the uterus and the broad ligament doubled on itself, the outer portion being fixed to the horn of the uterus by sutures. This is in accordance with the practice of Dudley, who lays great stress on suturing the divided ends of the broad ligaments to the stumps of the cervix in supra vaginal hysterectomy to prevent sagging of the vaginal vault.

The tendency of these round ligaments to stretch again was taken into consideration and they were drawn taut.

Of all the operations of hysteropexy and of all the modifications introduced, none has been found perfectly satisfactory. Doubling the round ligaments in this manner seemed to me best suited for this particular case. Recovery was without incident. Examination three weeks later, when she left the hospital, showed the position good.

When examined at home after three weeks more interval, I found she had become very constipated in spite of my careful directions and the uterus was dragging with its axis coinciding with that of the vagina and the os almost down to the pelvic floor.

I had inserted a hard rubber retroversion pessary and it has since been worn with comfort and keeps the organ in position.

Whether the pessary will hold its position until the natural supports shall have developed is a question that time will have to answer.

In favor of it is the age and natural growth of the patient and the fact of the removal of the cystoma which was holding the organ down. This tumor was probably only one factor in the prolapse, and the whole cause can not be said to have been removed.

In 137 cases, collected by Panhut, of operations for complete prolapse, 77 per cent. were cured. Jacobs reports eighteen cases, of which eight were failures. McLaren reports twenty-five cases in his own practice, with eleven failures. Other operators report about the same percentage of cases, showing the failures from 25 to 50 per cent.

It will thus readily be seen that I shall still be in good company if my efforts to keep the child-bearing function and to cure the prolapse are not completely successful at the first trial.

REPORT OF CASES.

By J. W. Dowden, M. D., Yeddow, Ind.

Case 1.—M. E., female, age 28, married, light complexion, nervous temperament. History by the family: Washed day before having family to do for; taken suddenly ill, complaining of head and back; I was summoned in haste; found patient in a deep sleep, breathing very slowly, about fifteen times per minute; pupils contracted; tongue heavily coated; temperature 105 degrees F.

Treatment.—Gave a brisk cathartic to clear stomach and bowels; applied friction to nape of neck and spinal column, hot mustard plasters to feet, cool application to the top and back of head, as temporal arteries were throbbing, also to equalize the circulation. Gave aconitine, veratrine and digitaline (active principle), of each 1-134 every one, two, three or four hours, according to effect. Next visit patient's bowels had moved freely. She seemed somewhat rallied. R Peacock's bromides, as there was considerable nervousness, with twitching of muscles. Gave it in large doses every two to four hours, until nervousness ceased when the dose was to be lessened and continued as before. Also fever medicine, to be given farther apart.

Third visit found patient rational. Temperature 102.5 F. Continued Peacock's bromides, one dr. every four hours; fever drops every three hours. Gave nourishment in soups, etc., light diet.

At my fourth visit patient sitting up in bed; said she felt weak, but had little or no pain. Temperature 101 F. Gave strychnia nitrate 1-100 gr. after meals; continued Peacock's bromides for several days for its derivative effect on the brain and meninges. Patient made a good recovery.

Case 2.—C. R., age 17. History: Had been from home, laboring. Family saw him coming home a little early; wondered the occasion; said he acted very curious, hence they watched him closely. Before he arrived home they thought he was intoxicated, but wondered where he could get anything on which to get drunk, as there was no place to get whisky in the vicinity; hence they kept an eye on him. He came to a small stream just before the house (his home); he paid no attention to it, but plunged through it, getting wet nearly all over. Still they watched him. When he came to the foot of a little hill he failed to go any farther, falling to the ground exhausted. Then the members of the family went to him; found him completely unconscious, not knowing anything they said to him. They now (went) took him up to the house, removed his wet clothing, replacing them with dry ones. He remained unconscious still. They placed him in bed beside

a warm fire, but still watched him. After he was in bed a short time, they noticed he was writhing, twisting and turning in various ways and shapes. Finally he made an arch of himself, standing on his head and heels. At this they sent for me in haste, saying, "Hurry, Doctor, we fear he is dying." I made a flying trip. Found patient resting on head and heels as they said, every now and then striking the head-board of his bed with his hands. When I approached him, I called him by name, asking if he knew me? He stared at me wildly, drew his arms in a striking attitude as though he would hit me. I caught his arms, held them for some minutes. I found his muscles and nerves rigid, contracting, then relaxing to contract again soon. The family were scared almost out of their wits, neighbors flocking in to occasion for the excitement, making the scene one of great agitation.

Treatment.—As I could do no better, I administered a hypodermic of morphine, $\frac{1}{4}$ gr.; atropine, 1-150 gr., at once. In about thirty minutes I could examine him better, he being somewhat quieted. I found we had cerebral congestion to deal with. I put him on Peacock's bromides, one teaspoonful every two hours, with a cholagogue, purgative, a diaphoretic and relaxant. Next morning patient was considerably better. Continued treatment for twenty-four hours, when we found patient in almost normal health. Dismissed him all O. K.

Now I consider this a case of jugulated cerebritis. Having seen many cases taken similarly, that continued for weeks, and sometimes for months, some to rally after long suffering, maimed in some manner; some to pass on to that borne from whence no traveler has ever been known to return, I claim for Peacock's bromides in this case that it is the ideal or central remedy around which all the rest are clustering.

ABSTRACTS AND SELECTIONS.

BOVINE VS. HUMAN TUBERCULOSIS.

At the recent Congress of Tuberculosis, Professor S. Arloing, of Lyons (*Annales de Medicine et de Chirurgie Infantiles*), maintained that:

All tubercular affections result from the Koch bacillus, but this possesses varying degrees of virulence and biological characteristics according to the place where it has lived.

The term "type" ought to be employed only to designate the usual presence of certain characteristics in a bacillus.

All varieties of the bacillus can be ag-

glutinated, can give tuberculin, and therefore can arouse the agglutinating substance in the living body.

The transmissibility of bovine tuberculosis to human tuberculosis and vice versa ought not to be discussed; only the frequency of this accident is under discussion.

All tubercular animals should be set apart for the health of man and reciprocally. But it is always the propagation from man to man which is most frequent.

All warm-blooded vertebrates can harbor the Koch bacillus with varying virulence.

The most attenuated varieties of the bacillus in man and in mammals are encountered especially in so-called surgical, gland or skin tuberculosis.

There are, however, cases of surgical or gland tuberculosis which harbor Koch bacilla, as virulent as those of parenchymatous tuberculosis.

By inoculation of guinea-pigs and rabbits we may determine the relative virulence of these germs.

The more alternated varieties may become virulent by passing through the body of a guinea-pig or may preserve their attenuation in spite of many such passages.

MASSAGE AND MOTION IN FRACTURES.

Gustaf Norstrom (*Medical Record*) declares that each case must be judged on its own merits. However, in the majority of cases of simple fracture, massage is useful in two stages: (1) At the beginning, because it favors the absorption of sanguineous and serous effusions and diminishes tumefaction and local tenderness; (2) after the removal of the apparatus, if such has been resorted to. It is only through massage that functional weakness, resulting from atrophy of muscles an induration, or retractions in the neighborhood of the calus, can be overcome. Massage facilitates the diagnosis, allowing an early application of permanent apparatus when the latter is indispensable, since this treatment hastens the absorption of the effusion and diminishes the swelling. Future accidents are prevented, because massage does away with long periods of immobilization and stimulates local nutrition. The writer then takes up the application of this measure in different fractures. Of these, fractures of the humerus seem to be the least favorable ones for treatment by massage. However, very brilliant results are sometimes attained in such treatment of these injuries. The writer does not advocate the application of any other apparatus in the treatment of fractures of the radius than a roller bandage around the joint. As to fractures at the olecranon, no treatment at all would be preferable to the former treatment of im-

mobilization. This also holds in fractures of the lower extremity of the fibula. True cures under the method of massage are often noted. In case of fractures of the neck of the femur, massage does not play a leading part, since the principal treatment is early immobilization. The writer has had good results in the treatment of fractures of the lower extremity of the fibula by massage. He points out the analgesic influence of massage. This treatment has been used in fractures of the shaft of the fibula, although it is not so favorable here as in injuries which are in the neighborhood of the joint.

THE LATE RESULTS OF CANCER OPERATION.

Steiner (*Deutsche Zeitschrift für Chirurgie*, Bd.) contributes a statistical study bearing upon the late results of cancer operation, basing his figures on the first surgical clinic of the Royal Hungarian Surgical Clinic in Budapest. The regional study is taken up at some length. In summarizing the results he notes that of 150 cases followed for three years, 41 per cent. remained free from recurrence; 47 per cent. recurred or died of operation (8.66 per cent.) or of an intercurrent disease.

Sixty-two cases followed for a period of five years from operation showed approximately 42 per cent. of cure, 54 per cent. of recurrence, and a little over 3 per cent. of operative deaths.

Of cancer operations after recurrence, including twenty-five cases, 32 per cent. remained free for three years, 68 per cent. recurred within three years. Of eighteen cases studied in regard to immunity for five years, 39 per cent. remained free from recurrence.

The author sums up by the statement that 40 per cent. of all cases operated on for the cure of cancer, and which cases he followed for this period, remained free from recurrence for three years, and that 41.25 per cent. remained free from recurrence for five years.

PHAGOCYTOSIS AND OPSONINS.

In a discussion of this subject contributed to the *Journal of the American Medical Association*, Hektoen has this to say concerning the treatment of various local infections by these means. There are various procedures employed, many of them more or less empirically, in the treatment of local infections, all of which serve in some way or other to increase the flow of blood and lymph through the area involved. Here belong hot applications of different kinds, rubefacients and irritants, massage, Bier's meth-

od of artificial hyperemia, the exposure to X-ray and radium, and also, in a measure at least, the Finnsen treatment. Wright has pointed out that the blind empirical use of some of these methods may not always be without danger when the blood possesses only inferior antibacterial power, and that their effectiveness may be increased in various ways, but particularly when the antibacterial power of the blood, as measured by its opsonic index, is higher either as a result of reactions to autoinoculations or to artificial inoculations of the proper bacterial vaccine. By the measurement of the opsonic index, then, valuable information may be obtained to guide in the treatment of local infections. Considering the practical impossibility in many cases of local tuberculosis of removing completely all infected tissue, it certainly would seem more desirable to undertake operation, if considered necessary, at a time when the tuberculo-opsonic index is high rather than when it is low and the general resistance of the patient to the bacilli that remain and may enter the opened lymph spaces consequently relatively reduced. The work of Wright and his followers on the antituberculo-opsonin in the blood of tuberculous patients also offers new points of view for the explanation of the healing of tuberculous peritonitis after laparotomy, long the subject of much discussion.

BACTERIOLOGY OF CEREBRO-SPINAL MENINGITIS.

Robinson (*Amer. Jour. Med. Sci.*) studies fifteen cases carefully, the organism being isolated from the spinal fluid, circulating blood, pus from the conjunctiva, and from the central nervous system at autopsy, agreeing in all respects with the *diplococcus intracellularis meningitidis* of Weichselbaum. It was isolated in pure culture from the spinal fluid of the fourteen cases in which puncture was performed, and is to be considered the causal agent in all cases. The organism was obtained from the circulating blood in two of four investigated cases, but is probably only an occasional invader of the circulating blood. It may be present for many days in the blood, and does not occur as an agonal invader of the blood. The *diplococcus* may occur in the pus of purulent conjunctivitis, a complication not infrequently seen in meningitis. It was isolated from one of the two cases in this series, which showed this complication.

Secondary lung infections with pyogenic organisms are frequent, and a terminal broncho-pneumonia was found in five of the six cases which came to autopsy, all of which showed the presence of pyogenic cocci.

HISTOLOGY OF THE BREUS SUBCHORIAL HEMATOMA.

Frankl (Beltrage zur Geb. und Gynak.): The patient from whom this specimen came had aborted twice before. In this instance the menses had not appeared for two months, when she noticed a slight flow. Five months later the abnormally small egg was expelled from the uterus. The amniotic surface showed many humps and tuberosities projecting from it. These were of various sizes, and of a bluish color because of the collection of blood beneath the membrane. The largest of these was about the size of a pea. From the center of the lumpy portion the umbilical cord arose, and led to a very much flattened and compressed fetus.

The value of the specimen being that it shows the earliest stages of the mole formation, and because the protuberances are still very small, it easily permits demonstration that they develop in the intervillous spaces. The amnion was thrown into folds, its size indicating that it had continued to grow more than the chorion, after the death of the fetus. The chorion also showed a tendency to fold as described by Breus, and these, becoming dilated, appear as empty intervillous spaces. In these he was able to demonstrate newly formed blood vessels filled with fluid blood, which form the above-mentioned protuberances. True hematomas result from the spreading of the blood foci and the degeneration or absorption of the villi.

SOME ANATOMIC AND PHYSIOLOGIC CONSIDERATIONS OF THE FAUCIAL TONSIL.

J. Gordon Willson (Jour. A. M. A.) discusses some of the points bearing on the surgical anatomy and the physiology of the tonsil. The normal size of the tonsil is hard to determine, since few have escaped some irritation and inflammation. Its activity has been demonstrated at the end of fetal life, not only by the multiplication of lymphocytes in the follicles, but by the infiltration of leucocytes with the overlying epithelium. It is well developed at the end of the first year, but apparently does not reach maturity and can only be said to be definitely developed about the fifth year. The tonsil is enveloped in a capsule of connective tissue, which is normally 1 mm. thick. From the capsule bands go off between the lymph-follicles in which lie the blood vessels and lymphatics. Willson believes the principal blood supply in man comes from the facial, either through a distinct tonsillar artery or more commonly from the tonsillar branch of the ascending palatine branch of the fa-

cial. The hemorrhage which occurs at times in tonsillar operations is due to an injury to the ascending palatine artery. Hemorrhage may also occur from injury to the branches of the lingual and superior palatine artery. In studying the secretions from the tonsil, the first fact that presents itself is that we have here a definite organ actively engaged in the production of lymphocytes. The germ centers of the follicles contain many cells undergoing mitotic division. From these follicles the lymphocytes may pass directly into the lymphatic system or through the mucous membrane into the mouth. As far as our present knowledge goes, the first do not appear to differ in any way from those secreted by the follicular glands. As for the latter, we have no definite knowledge, as it may be more of an excretion than a secretion.

A MIXTURE OF AIR AND CHLOROFORM AS AN ANESTHETIC.

Grehant (Le Bulletin Medical), in his experiments with animals, used a mixture of chloroform vapor and air, in the proportion of ten grams of chloroform to one hundred liters of air. He chose two dogs, one weak and sick, the other strong and vigorous. The first was anesthetized with the 10 per cent. mixture. The animal showed no excitement, but its temperature was lowered several degrees. One hundred c. c. of blood contained only twenty-one milligrams of chloroform. The second dog was subjected to the action of the same strength of chloroform. It showed strong excitement. In order to calm the animal it was necessary to employ a stronger mixture. Fifteen grams of chloroform to one hundred liters of air produced complete anesthesia. The rectal temperature did not vary. One hundred c. c. of blood contained fifty-two milligrams of chloroform. Grehant concludes from his experiments that the surgeon must employ doses of chloroform for anesthesia varying according to the strength of the patient.

CULTURES IN SERUM DIAGNOSIS.

De Rossi (Centralblatt f. Bacteriologie) does not agree with Ficker's view that the age of the culture has an influence on the Widal reaction, and reports cases in which the cultures have been placed in the water bath at a temperature of 58 to 60 degrees C. and kept there for one hour. After the addition of the specific serum to these cultures an agglutination rapidly occurred. These cultures after keeping for three months at a temperature of from 3 to 37 degrees C. showed the same agglutinating power as the living 24-hour culture.

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EDITORIAL.

USE OF TONIC ALTERNATIVES.

There is no more opportunity for philosophical research and thought in the whole of medicine than in the domain of therapeutics. As well there is no wider range of application than agents which are our therapeutic ones. The application of any measure which will promote the relief or total abolition of a symptom or a complaint comes under the head of and in the domain of therapeutics. A cold or hot stupe, a mere absorbent cloth, say of gauze, wet with cold water or hot, applied to a congested or painful area promotes a sense of relief, and is as much a therapeutic measure as a dose of morphine or the administration of any other drug. So, then, therapeutics does not necessarily imply the action of drugs on the human body, as so many only consider. Hence we can appreciate that

much thought can be brought to bear in the philosophy of therapeutic applications. When we deeply and intricately consider the elements of the body and the normal and physiological function of these same elements as they compositely proceed to definite action and function, we can compare it with the pathological and abnormal condition of these same fixed tissue elements and wish for the agents that promote the return to the normal. We care not whether these agents be massage, hot or cold applications, baths, exercise, change of climate, wearing apparel, or whether they be drugs taken internally to act along the intestinal tract locally or be absorbed and taken into the circulation and have more systemic effect. The philosopher or rational therapist is the successful prescriber, for more often will his prescribing produce the desired effect, as also will he leave his patient, running over in his own mind the various steps and changes his agents and the patient's tissues are undergoing. He has an easier conscience, or rather a more satisfied mind than the empirical prescriber. The latter prescribes a dose of rhubarb because it moves the bowels, and does not know the difference from the action of a saline cathartic. How much better to know that a saline is indicated where the bowel is overloaded with a dry stool and needs pure evacuation and more water in the stool. As well how much better it is to know that when a patient has had an action and does not feel unloaded, so to speak; still feels torpid, having a bad taste in his mouth, etc., and he needs an hepatic stimulant, and the rhubarb will have a delightful effect on stimulating the liver alone and free evacuation ensues by virtue of the fact that more bile flows. And so it goes; we must know more what we prescribe, and appreciate results better.

Of especial import in this connection also, we wish to speak of the use of alternatives, for they have a large field in the practice of medicine, and have not of late been given the proper consideration and use. There are chapters after chapters in our materia medica and therapeutic text-books which describe tonics and alternatives, and the majority of doctors do not consider the question of alternatives, but scarcely if at all. Our tonics are merely drugs which stimulate secretions as bitters, or elements as iron which replace the same such elements which occur in the body, but at times exist in lessened amounts. Now an alternative is a substance which can enter the body, awaken glandular action, stimulate absorption and repair, and in many minute ways bring about the return of the normal function or correct some deprived or impoverished condition. You could not call mercury or iodine a tonic yet they can work wonders toward bringing

back the health of an individual, and do it in the same case some idle layman may have suggested that a tonic was needed. Protolodide of mercury has worked wonders in people who have been taking cinchona or iron or nux vomica. They were getting plenty of iron in their food and needed no stimulation along the alimentary tract, for their appetites were excellent. Something is wanted to increase the general metabolism in the remote parts of the body. Anemic individuals have been promiscuously placed on enough iron to make all the hemoglobin needed in an army, but when one-tenth as much was combined with a little arsenic the anemia was corrected. So it is with alteratives everywhere, for we have a great need for the vegetable alteratives and echinacea is about the most efficient at our command. Skin eruptions, boils, old indolent ulcers about the body, either on skin or mucous membrane, very often will not respond to local dressings, and nine times out of ten will when a systemic vegetable alternative be pushed. A most popular combination is echthol, containing echinacea, and if it will be remembered that the impoverished general system needs attention, you may use a vegetable alternative, as in echthol, and your results will be surprising.

THE ETIOLOGY OF TABES.

It is remarkable with what tenacity the profession holds to the syphilitic origin of tabes, it being rare to read an article in which it is not given as the principal etiologic factor of the disease. In the recent Lumleian lectures, David Ferrier, according to the Charlotte Medical Journal, presents the evolution of our knowledge of tabes, its nature and causes, in a very able manner, pointing out that the essential character of the tabetic process is a progressive dystrophy or demyelination and ultimate destruction of the nerve fibres, with secondary proliferation of the neuroglia, he classifies the three leading views regarding its pathogenesis (1) the primary ganglionic origin, (2) the peripheral origin (v. Leyden and Goldschneider), (3) the meningitic origin (Nageotte, Redlich and Obersteiner), and concludes that "there is not one which is not open to several more or less serious objections," and considers that "the most probable pathogeny of the tabetic degeneration is the result of a toxin generated or conditioned by the syphilitic virus," basing his conclusions on the statistics of Erb and Hirschl, in his opinion "little room for doubt that tabes and general paralysis are in all cases of syphilitic origin, and that tabes per se is as much a proof of syphilis

as gumma of the skin." Such a dogmatic statement in the face of the recent work of Ford Robertson on the diphtheroid bacillus which he has isolated from many cases of paresis, and which on inoculation into animals has produced parietic symptoms, work which has recently been confirmed by Dr. Saunders, of Cincinnati, seems to be based on insufficient grounds. The arguments against the syphilitic origin of the disease are in part (1) that the disease refuses to yield to syphilitic treatment, (2) that many cases are on record in which no luetic infection could be shown, (3) that such a very small proportion of syphilitic have tabes, (4) the long interval between the date of the syphilitic infection and the development of tabetic symptoms, (5) that the tabetic process, once begun, is essentially of a progressive character and postulates a more or less continuous generation of the poison, (6) the lymphocytosis of the cerebrospinal fluid, which has also been found in meningitis, as well as in Landry's paralysis and herpes zoster.

Against the above six points the only one which has any force in favor of the luetic origin of tabes is the large percentage of cases which has a syphilitic history, this is in part accounted for by the bias of the statistician, if only those cases were counted who gave a distinct history of an initial chancre the number would be very materially decreased, but when we read the statement that the patient "denies infection but admits exposure" we know at once that every effort has been made by the statistician to prove his views, further in the incipient stages of both paresis and tabes both the sexual capacity and desire are very much increased, it being not uncommon to receive a history of remarkable excesses in venery over long periods before the development of any symptoms, increasing the liability to luetic infection. That tabes is the result of an elective poison is more than probable, similar degeneration having been produced by ergot, pellagra, lathyrism, the toxins of diphtheria and beri-beri, and by certain cachectic conditions, e. g. diabetes, pernicious anemia, etc. The selective action of infections under certain conditions upon the cord are seen in anterior poliomyelitis, which always occurs as a sequel to a period of high fever of shorter or longer duration, other neurosis are produced in the same manner, some of which are transient, some slowly progressive, others stationary and some remittent, consequently it seems probable that many of the diseases caused by nerve degeneration will ultimately prove to be the result of infection of the part either by a specific bacillus or by any localized infection; in some cases of epilepsy it has been suggested that the attacks are due to

infection by a parasite which produces periodic attacks in the same manner as the plasmodia malariae.

Abstracts and Selections—Continued

LANDRY'S PARALYSIS.

R. McGregor (Jour. A. M. A.) reports an interesting case of Landry's paralysis and discusses its etiology and pathology. While he considers it to be due to a toxemia, specially involving the anterior spinal horns, he thinks it probable that in very virulent intoxication the peripheral nerves may also be implicated in a secondary way, and a multiple neuritic condition coexist. These are the cases that, perhaps, give most trouble in their diagnosis. The very high mortality of this disease, however, is in striking contrast with those disorders, multiple neuritis and anterior poliomyelitis, with which it is most liable to be confounded. In the case reported, the attack seemed to follow vaccination; it was preceded by chilly sensations, fever, sweatings, and vertigo, and the rapidly ascending paralysis within a week from its first appearance had involved all four extremities, the muscles of speech and deglutition, and the ocular muscles. There was also cardiac irregularity and dyspnea, but there was no pain or nerve tenderness, and no fever after the stage of onset. The patient slept well and took a fair amount of nourishment. The bulbar symptoms began to improve after two months, but recovery was not approximately complete until after two years, and the patient has not yet attained his former weight by thirty pounds. There is still a slight foot-drop, most marked on the right, and the knee-jerks have not returned. In the treatment the best results seemed to follow the use of a simple solution of the glycerophosphate of iron with small doses of strychnia.

RELAXATION OF THE UTERUS DURING CURETTAGE.

Gussenbrock (Centralblatt für Gynäkologie) states that usually the uterus relaxes at the beginning of curettage, although he is not sure whether this is due to dilatation of the cervix or to the curettage itself. The soft feeling which was supposed to be due to mucous membrane is due to this relaxation, and the hard, grating sensation, formerly thought to show that the musculature had been reached, is due to the subsequent contraction of the uterine vessels. In some cases the relaxation is so extreme that the distance to which the curette sinks suggests perforation, and the author reports several such cases, in one of

which the sound entered to a depth of fifteen centimeters. The author warns against mistaking this condition for perforation and interrupting operations unnecessarily, and against the danger of making a perforation in the relaxed wall, which will harden in a few minutes if the operator pauses.

A MODIFIED OPERATION FOR MOVABLE KIDNEY.

J. Chalmers DaCosta (New York Medical Journal) has long been dissatisfied with the suture operation for movable kidney, and has practiced the following operation in twenty cases, to his entire satisfaction. The exposure of the kidney is identical with the method of Senn, and the kidney is brought out of the wound as advocated by Edebohl. The fatty capsule is cut away and the fatty capsule is either scraped or rubbed with gauze, or decapsulated. The ends of two pieces of iodoform gauze are sewed together with slender plain catgut for use for the upper and the lower pole of the kidney. Therefore, instead of passing one long piece of iodoform gauze beneath a renal pole, and being obliged subsequently to pull a long end around under the kidney, when the gauze is to be removed, a sutured piece of gauze is placed under the renal pole and, as the sutures are composed of fine plain catgut, they quickly absorb, and in a few days the gauze is easily delivered, and, the suture line being directly under the kidney, there is only a short end to pull around on each side.

THE INFLUENCE OF SODIUM CHLORIDE UPON DROPSIES IN CHILDHOOD.

O. Gruner (Weiner klinische Rundschau), after a number of experiments extending over several years, has determined that in kidney affections the excretion of sodium chloride is interfered with, and in consequence, in order to establish osmotic equivalence, there is developed pathological water retention and edema. Observations made with a diet deficient in chlorides, in a case complicated with heart disease in two acute and two chronic cases of parenchymatous nephritis, one interstitial nephritis, and two healthy infant (nurslings) gave the following results: The cardiac edema entirely disappeared, but returned in a few days to a less extent, when salt, (150 grains a day) was added to the food. An ordinary mixed diet also had the same effect. The body weight increased coincidentally with the retention of the chloride. In the cases of nephritis also sudden increase of the dosage of salt was attended by a corresponding increase in the dropsy and the bodily weight. In these the reduction of salt in the food

did not always cause an equally prompt diminution in the edema. In the case of interstitial nephritis there was observed a lasting tendency to increased chloride excretion, but without corresponding loss of weight. It appears that just in these graver cases of disease of the kidney the retention of the chloride is not always accompanied by a corresponding degree of water retention; but may far exceed it (i. e., when considered in its osmotic equivalence). In the healthy infant, Gruner found that by suddenly intake of sodium chloride that there was a retention both of chloride and water causing increase of weight, owing to the inability of the kidneys to excrete the unaccustomed quantity of salt, the retention of which naturally led to the retention of water. From these consideration the practical clinical conclusion is drawn that in renal and cardiac dropsies, and where there is a tendency to their development, it is advisable to place the patient upon a diet as free as possible from sodium chloride.

TUBERCULOSIS IN SCHOOLS.

In a careful study of the schools and scholars of Paris, Dr. Vautier (*Revue d'Hygiene et de Medicine Infantiles*) arrives at the following conclusions:

"In the common schools of Paris, tubercular contagion appears to us to be very rare. This contagion may be produced in a family during the school age, but even that is not frequent. The number of children of school age who have clearly pulmonary tuberculosis is very small. Children, in a great majority of cases, at least among the poor, are infected by latent tuberculosis at the time of their entrance into school."

He therefore proposes the following rules and regulations:

Add to the instruction given relative to the construction of school buildings a rule favoring facing the building so that the sun's rays may penetrate the class-rooms and the courts.

Replace wooden floors by those without joints in schools to be built, and if possible in those already built.

Exclude children who have evident tuberculosis, except that surgical tuberculosis may be so protected by airtight dressing as to be safe.

Send away members of the teaching force who have evident tuberculosis or put them in places where they will not come in contact with children.

Have school-rooms often thoroughly cleaned.

Seek to increase the strength of children by walks and games, for which open lawns are necessary. Fortifications or the space about them are all that is necessary.

Insist that the schoolmasters advise cleanliness, and if need be, require it, and that they make it possible for them to know the meaning of a bath.

Insist on obtaining from the boards of health proper aeration and size for homes and disinfection of places occupied by bacillus-bearing tubercular patients, specially at the time between the departure of the infected family and the entrance of another family.

Invite the school boards to consider the matters of better food for the children, furnishing a meal to many of them and making arrangements for free medicines, specially those prescribed by the attending physician.

Send children convalescent from acute sicknesses, specially those likely to become tuberculous; measles, pertussis, etc., to special institutions in the country.

Establish seashore hospitals at convenient places, where tubercular children may stay six months or a year, and receive suitable treatment.

RESECTION OF THE BOWEL—A NEW METHOD.

In connection with the report of a case Autonelli (*Archiv fur klinische Chirurgie*) describes fully his method of resecting the bowel with the use of the Murphy button. The method is applicable to end-to-end anastomosis only.

After determining the limit of the part to be resected, the serosa and muscularis are incised completely around and drawn back toward the part to be excised, and the mucosa and submucosa are cut through at a point six to eight millimeters further on, leaving a projecting cuff of the inner layers. This is done at both ends, and the Murphy button applied in the usual manner by silk purse-string suture which includes only the cuff of mucosa. The button is enclosed by bringing the cut ends of the muscularis and serosa together with cat-gut.

The advantages are: (1) The muscularis is exactly united and joins with no danger of stenosis; (2) there is less danger of the escape of fecal matter; (3) the buttons comes away sooner; (4) the operation is more rapid and safe. In microscopic preparations from animals, the line of union could hardly be recognized.

LOAF SUGAR IN DIABETES.

Oefele (*Muchener medizinische Wochenschrift; Medical Record*) states that for some time he has been allowing the more intelligent of his diabetic patients to take a certain amount of loaf sugar, with very good results. In 88 per cent. of the cases it was

found that the regular consumption of three to five grams or over of sugar daily, the amount of glucose in the urine either did not increase or even decrease, while the general condition of the patients was much improved. Not only is the subjective effect on the patient excellent, but as the diabetic organism is deficient in albumins and fats, it is advantageous to have the carbohydrate metabolism increased as much as possible. A diet restricted to albumins and fats involves risk of insufficient oxidation of nitrogen and fats, with its danger of oxibutyric acid intoxication, and the possibility of coma, and the administration of sugar does much to avoid these perils. The sugar is best given in the form of sugar water or in coffee, shortly before muscular exertion, the rule being, no sugar without exercise and no exercise without a preceding sugar feeding. The author believes that the administration of large amounts of sugar under suitable precautions, is advantageous, if not in all cases, in at least ninety-five per cent. of diabetics. Both the actual strength and the feeling of energy are increased by this addition to the dietary.

THE QUESTION OF CLOSING THE PERITONEUM AFTER VAGINAL TOTAL HYSTERECTOMY.

S. Schnetze (British Gynecological Journal) in fifty-six cases of total extirpation of the uterus by the vagina for carcinoma or myoma closed the peritoneal cavity with care. Death followed in four instances, but could not be attributed to the method of operating. His experience and the cases recorded by others show that the danger in drainage is considerably greater—from prolapse of the omentum, or of coils of intestine, ileovaginal fistulae, ulceration of the bladder or bowels, ascending peritonitis, and especially from pus, all of which are more surely avoided by closing the peritoneum.

INDICATIONS FOR THE EXTIRPATION OF THE ADEXA IN CONNECTION WITH HYSTERECTOMY.

Miranda (Arch. di Ostet. e Gyn.), after a comprehensive clinical and anatomo-pathological study of the functions of the ovaries and their relation to the menopause, gives the following conclusions as to the advisability of their preservation or removal in cases of hysterectomy. The studies of the function and secretions of the ovary do not yet render it possible to formulate the effects of their removal on the organic processes of the body. Clinical observation shows that preserving the ovaries lessens the rapidity and the severity of the occurrence of symptoms due to the menopause, thus rendering the organism able to accustom it-

self gradually to the absence of their function; the atrophy of the ovaries is slow and gradual. Experimental and anatomo-pathological examinations support this view of their preservation. There are certain dangers and inconveniences due to their preservation which counterbalance the advantages of the method. The ovaries should never be left in hysterectomy for disease of the adnexa themselves, nor in disease of the uterus of malignant character, nor in sixty per cent. of myomata. Their preservation is especially to be recommended when the operation is done for the accidents of labor, excepting contracted pelvis and disease of the sexual sphere, in conjunction with a resection of the body of the uterus.

TREATMENT OF MEDIASTINAL CARCINOMA WITH THE X-RAYS.

Pfahler (American Medicine) reports six cases of carcinoma of the mediastinum treated by the X-rays, and says that the results are at least encouraging. As a whole, the line of treatment offers more than can be hoped for from any other line. All the cases show some improvement, though three patients have died. The other three are either well or nearly so. Sufficiently good results have been obtained in these cases to justify recommending the use of the X-rays early in such patients. It has been shown beyond a doubt that the Roentgen rays can affect deep-seated disease without destroying superficial tissues.

LEUCORRHEA.

Siderey and Bigart (Annales de Gyn. et d'Obstet.) differentiate simple functional leucorrhoeas from those due to the infective processes as follows:

1. Simple vaginal leucorrhoea is characterized by: (a) Flat cell of the vagina, numerous; (b) similar cells which do not stain so well; (c) scattered cellules with proliferating nuclei; (d) lymphocytes; (e) numerous cocci and bacteria among and within the cells.

2. Secretions of genital infections show: (a) Few normal flat vaginal cells or columnar cells from the cervix; (b) numerous degenerated vaginal and cervical epithelial cells; (c) many polymorphonuclear leucocytes, indicating suppurative processes of the genital tract; (d) fewer microbes than in normal secretion, the gonococcus being frequently present.

The micro-organisms are very varied, but correspond well enough with the clinical findings to make the microscopical examination worth while. By this, also, it is possible to distinguish between acute and chronic processes. The microscope is of particular value in gonorrheal infection, though repeat-

ed examinations, of most avail directly after a menstrual period, are insisted upon. Long bacilli and streptococci are found oftenest in normal secretions, whereas, in infected discharges short microbes (cocci) appear in group and chains. Hence, during treatment, the reappearance of the ordinary forms may be taken as an evidence of improvement.

ACUTE GASTRITIS.

L. R. Barstow (Merck's Archives) states that acute gastritis is not the bugaboo in treatment that the chronic form is. The treatment is confined to a few lines—rest, both of the organ itself, and of the body; evacuation of the stomach and bowels; control of the temperature and vomiting, and diet. He uses as few drugs as possible. He gives as an emetic and to avoid irritation of the mucous membrane, apomorphin hypodermically, in doses of from one-tenth to one-fifth grain. He finds few patients who are willing to submit to lavage. For evacuation of the bowels, calomel in small doses, one-tenth grain every hour, or calolactose—being a fine trituration of calomel and bismuth subnitrate, in doses of one grain. This generally controls the vomiting as well. If the latter is very severe, he orders an ice-bag to the epigastrium, small chips of ice by mouth, and finally cerium oxalate, and narcotics such as opium or cocaine. In very severe cases, rectal injections of an emulsion containing some form of opium are useful. The temperature is generally easy to control by cool sponging or ice packs, the antipyretics being seldom indicated. As to diet, he prohibits all food for the first forty-eight hours, allowing plenty of cold boiled water, or the carbonated or mineral waters. After this he commences on a milk diet, four to six ounces every three or four hours, and gradually increases it as the patient's condition improves. If the patient be troubled by sour belching, alkalies, such as sodium bicarbonate, are indicated. With subsidence of the acute symptoms, exhibition of the bitter tonics is generally followed by a prompt recovery.

EARACHE.

Albert Bardes (Medical Record) emphasizes the fact that the importance of this symptom is still not recognized as it should be by either the laity of the profession, and he discusses the nature, etiology, and symptomatology of middle-ear infections. Of the treatment, he says that as soon as earache begins the patient should be kept quiet, put to bed, and placed on a fluid diet, and in other ways treated as we would a patient with a high fever. The bowels are to be kept open, and a single dose of morphine

may be given to insure rest and comfort. Dry heat, or else an ice-bag, can be applied to the ear. The former is more acceptable to most patients. Every three hours the ear should be gently irrigated with a hot solution of bichloride 1 to 5,000, after which a few drops of a 12-per-cent. solution of carbolic glycerine can be instilled. Under no consideration should a person be allowed to suffer pain longer than twenty-four hours. If the pain continues and the drumhead is inflamed and distended, palliative measures are worse than useless, and any attempt to abort the inflammation by means other than surgical is dangerous, and valuable time is lost in so doing. A bulging drumhead should be treated in the same way as a septic formation in any other place. It should be freely incised rather than simply punctured or allowed to break.

A CASE OF ILEO-COLITIS IN A CHILD SIMULATING ACUTE INTUSUSCEPTION.

J. A. Forbes (British Medical Journal) says a girl aged five years, was seized with severe abdominal pains accompanied by vomiting which continued during the night. She had an intense diarrhea, the stools finally containing merely blood and mucus. The temperature was 103 degrees F., pulse 140. The abdomen was slightly tender, especially on the right side. On the second day there was dullness over the right half of the abdomen, but the child began to improve and in a few days was well and playing.

THE EXTRACTION OF THE HEAD AFTER DECAPITATION.

Ruhl (Zentralblatt f. Gynak.) deprecates the method advised by Bensinger, in which the head is seized with toothed forceps and removed by steady traction continued for hours, or even days, for he believes that the chances for infection, sepsis, or hemorrhage are too great if this method is used. If systematic and proper measures are taken, the head may be promptly removed without great difficulty. Several cases are cited to show results obtained from Ruhl's methods. As soon as the body of the fetus is removed, he places two fingers in the mouth and makes traction on the lower jaw, while the external hand makes strong pressure above to prevent the head from slipping back. During the procedure it is extremely important to bear in mind the normal mechanism of the passage of the head through the pelvis, and to cause the head to descend accordingly. It is not advisable to try to apply the forceps to the head above the inlet of the pelvis, for they will generally slip off, but once the head has entered

the cavity, there can be no objection to doing so. Should this method fail, the head should be perforated, and in order to do so, it should be firmly and immovably fixed by being held by an assistant against the pelvic inlet. Then the cranioclast can be entered through the mouth, through either of the fontanelles, or perhaps through the orbit. After perforation, the extraction should be done with the cranioclast, and the operator must adapt his method to the necessities of the case. In case some hours have elapsed since the extraction of the fetal body and the cervix has contracted, it should be dilated with the Bossi dilator. This may be easily done, for the amount of dilatation necessary to deliver the perforated head is only three to four fingerbreadths. For cases where extreme contraction of the pelvis exists, the vaginal Caesarean section must be done.

INFLAMMATION OF TISSUES AND ITS RELATION TO CANCER.

E. H. Nichols (Maryland Medical Journal) says that certain types of epithelium (epidermis), both adult and fetal, can be experimentally removed from their normal position and implanted into another part of the same animal, and under those circumstances can maintain their "potentiality of growth," retain their own peculiar character, and produce nodules analogous to dermoid cysts or more complicated teratomata.

In no case has any epithelium of a highly differentiated function been seen to maintain its power of growth or to proliferate. The "potentiality of growth" is greater in the case of fetal than it is in adult tissue.

In no case has any infiltration of surrounding tissue by the transplanted epithelium been seen, nor any tendency to epithelial metastasis.

Certain fetal connective tissues (cartilage) can be transplanted in the same way as epithelial tissues and retain their "potentiality of growth."

Transplanted fetal tissues do not reproduce the stage of development at which they are transplanted, but tend to reproduce the ultimate stage of their normal development.

KRAUROSIS VULVAE.

Brothers (The Post-Graduate) under this title reports the case of a woman thirty-six years of age, married eighteen years, and the mother of four children. The disease was characterized by intense itching, which followed an operation for perineal repair ten years before. Associated with the itching, the skin presented an enormously hypertrophied and irritated appearance. At no time for nine years was the patient ever free from pain, burning, and intolerable

itching, until she finally presented a condition bordering on mania.

A large loop of integument was excised, including the skin of both labia majora and most of that covering the perineal region. The uterine interior was curetted, and several small hemorrhoids were cauterized with the heated platinum of a Paquelin cautery. The excised skin was three-fourths of an inch thick at certain parts.

The resulting wound was readily brought together by sutures. For three months the patient was cured and gained fifteen pounds. In the next six months there was a gradual return of the symptoms.

Treatment of the pruritic element must be combatted by attacking all the discoverable etiological and associated factors responsible for its production.

Benicke cured a case of kraurosis with cocaine salve, tincture of iodine applied twice weekly, Lassar's paste, and, later, ten-per cent. solution ichthyol-resorcin tampons. Siebourg cured pruritic conditions with subcutaneous injections of normal salt solution. In addition he touched the part with ten-per cent. nitrate of silver solution.

The following preparation will be found useful:

R Cocaine, 2.0;
Orthoform, 1.5;
Menthol, 0.5;
Ac. carbol., 1.0;
Vaselin, 20.0.

M.

Final recourse for the cure of obstinate cases is the operating room.

Schroeder excised the pruritic area in five cases.

Barker reports twelve operations for pruritis vulvæ, with complete cures in every instance. Favel resected the internal pudic nerve for pruritis vulvæ, and Hirst resected the entire sensory nerve equipment of the pruritic area, including the nerve of the dorsum of the clitoris in one case, in the other the genito-crural, ilioinguinal, inferior pudendal, and superficial perineal nerves.

The author refuses to regard kraurosis vulvæ as an independent entity.

SECTION OF THE PUBIS IN LABOR.

A strong defense of hebotomy is made by Aubert (Revue Medicale de la Suisse Romande) who shows that none of the objections offered to symphyseotomy are applicable to it, and that even in the hands of inexperienced operators it has only half the mortality of Caesarian section by the most adept surgeons.

As the section is not made in the middle line, the supports of the bladder and ureter are not endangered, nor are the delicate soft structures, such as the clitoris, submitted to tension. The muscle is firmer

than in the middle line, and there is little danger of laceration. Hemorrhage is never great, as the cavernous bodies are avoided. The tension of the adductor longus and rectus internus prevents extreme separation of the fragments. The union of the section is prompt and certain, and the mechanical result always perfect. It is less dangerous in pelves of seven centimeters true conjugate than premature labor, and may be used safely on febrile patients.

The operation is performed by making an incision along the upper border of the pubis from the middle line to the spine. The upper edge of the bone is exposed, and a curved mounted needle is passed behind the pubis close to the bone. A short cut is made in the skin below the pubis, and the end of the needle forced through. A Gigli saw is attached to the end of the needle, and is drawn up and down until the bone is severed. The wounds may be closed without drainage.

URINARY CALCULI IN EGYPT.

Goebel (*Zeitschrift für Chirurgie*) dwells on the frequency of bladder stones in Lower Egypt; they are, however, rare in Upper Egypt. This observation coincides with the distribution of the bilharzia in this country, and the writer ascribes the frequency of stone to the presence of this parasite. He suggests classifying the countries in which stone is frequent by the ages of the persons affected. In Italy, India, Russia, and Turkey children preponderate, whilst in Austria and Germany most of the people affected were over fifty years of age.

MEDICAL GLEANINGS.

Juglans is a good vermifuge, and it is claimed that it has destroyed tape-worms.

Large doses of stimulants depress by over-stimulation—i. e., over-functional activity.

For Diabetes Mellitus.—Hershey has had success from the administration of fluid extract of anhalonium, six minims every three hours.

Jacoby recommends common salt added to milk to prevent its coagulation into large, firm masses.

The immediate operation (within twenty-four hours) in all cases of lacerated perineum, however slight.

Dr. Harnsberger says that acetanilid is a valuable remedy in threatened miscarriage or habitual abortion.

For chorea give Fowler's solution of ar-

senic, or arseniate of copper; overcome nervous symptoms by bromide of sodium.

In incontinence of urine in children give bromide of sodium and tincture of belladonna.

Dr. Jones states that minute doses of eucalyptus, frequently repeated, will control the high temperature in typhoid fever better than any other antifebrile remedy.

Monobromated camphor has been found to be a very efficient remedy in headache from over brain work through study or excitement. Dose, two to five grains in tablet or capsule. Tinct. valerianatae of ammonia has been used for headache of a nervous hysterical kind. Dose, a teaspoonful.

The danger in using mild caustics, acids, etc., for the removal of warts in the aged is well understood. Gr. 2 of magnesium sulphate given with water q. i. d. and a saturated solution of the salt applied locally will cause the most inveterate warts to shrivel and disappear within a month. The same procedures will suffice for non-specific vulvo vaginal warts and vegetations.

Before the French Society of Legal Medicine, Butte argued that no violation existed. The medical men who are attached to that particular department in question of the State are not, so far as these duties go, practicing medical men. They act simply as experts and delegates of the police just in the same way as do other inspectors. The woman who comes to him does not confide in him; she comes because she must. This being so, there is no secrecy about the matter and consequently no violation. It is claimed by some objectors to the police examination of prostitutes that the medical man whose duty it is to carry out the examinations can not, without violating his oath of professional secrecy, legally fulfill such duties.

Publicity as a Factor in Venereal Prophylaxis.—P. A. Morrow declares that the concealment of facts regarding venereal diseases is a factor in perpetuating the evils attending them. The value of publicity in the suppression of evils has been amply demonstrated of late, but the venereal evil furnishes the most conspicuous example of an evil that flourishes in darkness and owes its power for mischief to the obscurity to which it has been relegated by traditional prejudice. Publicity here is desirable, he says, and is absolutely indispensable to the success of plans for prophylaxis. To the question, is publicity practicable, he answers that it is, and that the sentiment that forbids the open discussion of the subject has no place in the counsels of preventive medicine. Though the newspapers are not available, physicians can work with tracts,

pamphlets, conferences, lectures, meetings of medical societies to which the public is invited. Another valuable agency would be a journal of popular medicine, devoted to the study and prevention of all communicable diseases, especially those spread in the ordinary relations of social life. Such a one has already been projected. He believes the present a favorable time to dispel the indifference of the public regarding this evil and to bring about reform.

Thos. G. Rainey, M. D., L. R. C. P., resident physician, British Medical Institute, Atlanta, Ga., in a recent article states that the combination of drugs antikamnia and codeine in the form of antikamnia and codeine tablets, which has been so largely used for the control of cough, is also being successfully employed, to a large extent, in the treatment of nearly all affections of the respiratory tract which are accompanied by dyspnea and spasm, namely, bronchitis, laryngitis, phthisis, whooping cough, hay fever and gripal affections. In cases in which the patients were suffering from the severe attendant pain of these diseases, it

was found that this combination acted most satisfactorily. Each tablet contains 4½ grains of antikamnia and ¼ grain sulph. codeine. To administer these tablets in the above conditions, place on etablet in the mouth, allowing it to dissolve slowly, swallowing the saliva. In the various neuralgias, and in all neuroses due to irregularities of menstruation, this tablet affords immediate relief, and the relief is not merely temporary and palliative, but in very many cases curative. The dose most satisfactory is one tablet every half hour until four are administered.

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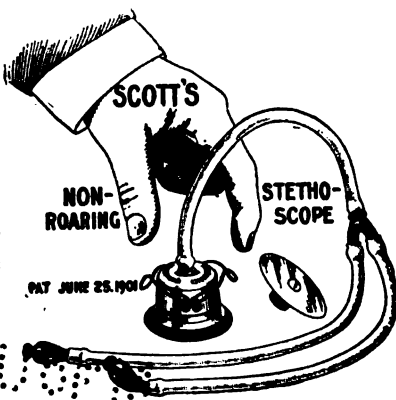
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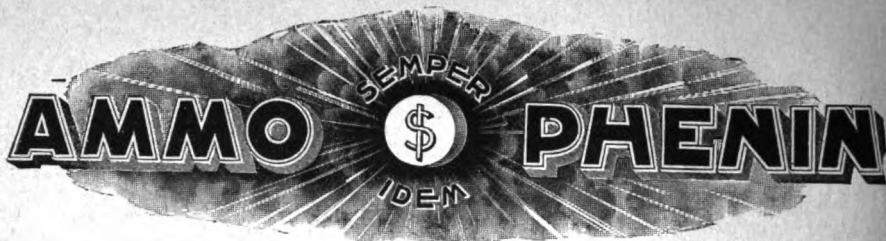
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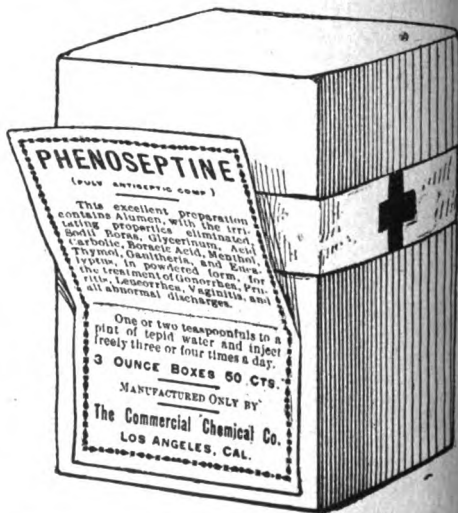
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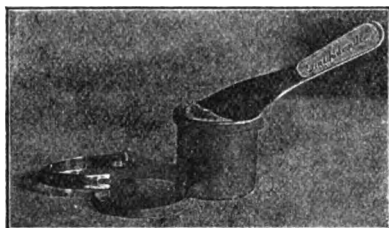
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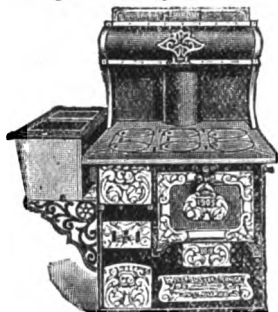
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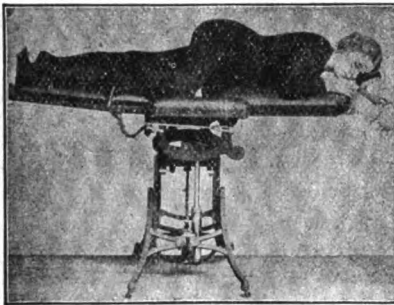
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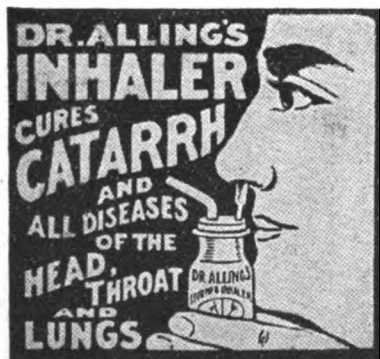
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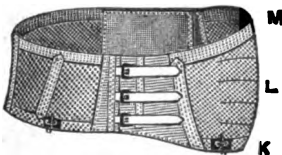
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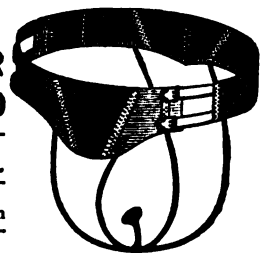
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